Windows into Safety and Quality in Health Care 2008

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

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Contents

ISBN 978-0-9803462-7-5

Suggested citation:
Australian Commission on Safety and Quality in Health Care (October 2008), Windows into Safety and Quality in Health Care 2008, ACSQHC, Sydney.

The Commission wishes to thank Imogen Curtis for her work on this report.

Foreword

The Australian Commission on Safety and Quality on Health Care is required to report publicly on the state of healthcare safety and quality in Australia.

In 2007, the Commission and the Australian Institute of Health and Welfare jointly published a report on sentinel events in Australian public hospitals. This year's report, *Windows into Safety and Quality in Health Care 2008*, includes voluntarily provided private sector sentinel event data published nationally for the first time.

This report is not limited to sentinel event data. *Windows into Safety and Quality in Health Care 2008* also focuses on current levels of safety and quality in the areas of the Commission's chosen priority programs.

Future Commission reports will include more and different information as national reform encompasses issues such as accreditation and national safety and quality indicators.

Improving healthcare safety and quality is an important national goal with a real and worthwhile impact on patient outcomes. Measuring and reporting on improvements are important elements in the process.

The professionalism and hard work of the Commission's dedicated staff are exemplified in many examples of the Commission's progress in driving the national safety and quality agenda to improve patient welfare throughout Australia.

Bill Beerworth
Chairman
Australian Commission on
Safety and Quality in Health Care

1

Introduction

Why do we need to report on safety and quality in health care?

This report is designed to provide windows into aspects of safety and quality of Australian health care in 2008. It focuses on the current priority areas of the Australian Commission on Safety and Quality in Health Care to provide a picture of the kind of safety and quality Australian patients experience in 2008 and what their experience could be beyond 2008.

Professor Chris Baggoley and Dr Christine Jorm Australian Commission on Safety and Quality in Health Care

Safety and quality in Australia

Within many countries there are enormous variations both in the quality and outcomes of health care. Quality encompasses the errors of over-use and under-use of recommended care, as well as misuse (or errors in care)[1]. Australian data points to considerable variation in health outcomes, demonstrating the need for improvement. Mortality figures for Aboriginal and Torres Strait Islander people is almost three times greater than those for non-Indigenous people. Indigenous maternal mortality is five times the rate for non-Indigenous women[2]. Compared with those in major cities, Australians in rural and remote areas have higher death rates from cardiovascular disease. Yet, those in rural areas are dispensed the appropriate cardiovascular medicines at half the rate, and less than one-thirtieth the rate in remote areas, than their urban counterparts[3]. Rural residents of NSW have a greater chance than urban residents of earlier death if they are diagnosed with lung, colon, breast, melanoma or prostate cancer[4]. Bacteraemia due to MRSA has been halved in Victoria during a hand hygiene culture change program[5], but we don't know the rates of MRSA bacteraemia for other parts of Australia.

Preventable adverse events, such a wrong site surgery and healthcare associated infection, continue to occur. A survey published by the Commonwealth Fund in 2007 revealed that Australian consumers have a low level on confidence in health care, with only 24% feeling that the health system works well. 55% of those surveyed considered that fundamental changes were needed and 18% advocated a complete rebuild of the health care system[6].

The Australian Commission on Safety and Quality in Health Care

The Australian Commission on Safety and Quality in Health Care (the Commission) was established in 2006 to lead and coordinate national improvements in safety and quality. Its establishment followed the 2005 review by Paterson [7]. Health Ministers established the Commission to:

- Lead and coordinate improvements in safety and quality in health care in Australia by identifying issues and policy directions, recommending priorities for action, disseminating knowledge, and advocating for safety and quality.
- Report publicly on the state of safety and quality, including performance against standards.
- Recommend national data sets for safety and quality, working within current multilateral governmental arrangements for data development, standards, collection and reporting.
- Provide strategic advice to Health Ministers on 'best practice' thinking to drive quality improvement, including implementation strategies.
- Recommend nationally agreed standards for safety and quality improvement.

The focus of the Commission's work is on priorities for the health system where current and complex problems and community concerns could benefit from national consideration and action. The Commission's initial priority areas included Healthcare Rights, Patient Identification, Medication Safety, Clinical Handover, Healthcare Associated Infection, Open Disclosure, Accreditation and Information Strategies. This report uses the Commission programs as a focus to describe and report on the current state of these safety and quality priority areas in Australia. The chapters describe current status but also look forward to planned or possible improvements. It is a sign of the progression of the Commission's work program that we are able to design this report in this way. The Commission's work in these areas is ongoing and is described on the second page of each chapter of this report. Other areas for coming work include falls prevention, credentialling and the identification and management of patients at risk of critical illness and serious adverse events.

The Commission, as the peak national safety and quality body, produces its own evidence through commissioning research, evaluating projects and analysing information in the public domain. With this evidence base, the Commission can assist in the implementation of sustainable change that is efficient and effective.

The Commission is not a service provider. It must utilise evidence and data and the enthusiasm and commitment of consumers, clinicians, managers and other stakeholders to influence the system and to make recommended changes if the safety and quality of health care in Australia is to improve.

The Commission has three key committees, which cover the public health sector, the private hospitals and private health insurers and primary care. These committees, which are supplemented by specific technical advisory groups, give the Commission's work breadth, depth and expertise. They also enable insight and influence across the whole health system. The Commission is also increasingly engaging with the Healthcare Complaints

Commissioners from all states and territories to progress issues of mutual interest. The span of interests of safety and quality stakeholders is broad and this group includes consumers, private and public hospital sectors, primary care, accreditation organisations, academics, industry, health insurers, information technology providers, clinical practitioners, professional organisations and education bodies, governments and policy makers.

Public reporting

The Commission is accountable for reporting on the state of safety and quality in Australia, but is also committed to engage with a public audience. This report is only a beginning in meeting these objectives. It has been suggested that for trust in the health care system 'we need not only trustworthy person and institutions, but also assessable reasons for trusting and for mistrusting' [8p98].

Public reporting should serve to promote public trust as part of a framework of accountability that includes legislation and regulation (e.g. audit, accreditation, licensing and inspection) [9]. The Canadian Health Services Research Foundation notes that many reports are not designed with the public in mind, and are simply being 'made public' rather than being designed to speak 'to the public' and suggests the need to replace passive reporting with more interactive ways of engaging with the public audience [10]. Both the UK and the US have committed to public education programs that are designed to create demand from consumers for information [10]. This demand should then determine what and how information is available.

The development of the Australian Health Standards as part of the national reform of accreditation and the development of national indicators for reporting on safety and quality will allow reporting against standards to commence [11]. Both will be incremental and iterative processes, but reporting against these will commence in 2009.

To support patient choice reporting needs to be structured so that patients can make a practical choice between treatment options, institutions or practitioners [9 12]. This type of reporting rarely achieves its objectives of providing the information needed to allow choices to be made [13 14 15 16]. Research in the US and the UK indicates that consumers want more information about performance of hospitals [17]. Telephone polling of more than 6000 US consumers revealed that hospital infection rates would influence decision making for 94% of consumers [18].

Yet, the challenge is to present data in ways that consumers can understand and that are relevant to them [19].

Learning from data to improve safety and quality in health care

The Commission's aim is to use future reporting, which will be more extensive and of a variety of forms, to build trust in the health care system [20]. The Commission will report at other times and in other ways on safety and quality in health care. This report, however, is designed specifically to encourage critical self-reflection by the health care system in 2008. The system includes funders, providers and consumers.

It is considered an ideal for clinical practitioners to practice critical self reflection or to be 'mindful'. This enables them to better: 'listen attentively to patients' distress, recognise their own errors, refine their technical skills, make evidence-based decisions, and clarify their values so that they can act with compassion, technical competence, presence and insight' [21].

The windows in this report give us a view of the public health sector, as well as the private. For the first time sentinel events in private hospitals have been included next to those from public hospitals (Chapter 9). This data was given freely to the Commission by private hospitals who are keen to participate fully in reporting, analysis and improvement in quality and safety and who are working with us on all our priority programs.

The report attempts to create new knowledge or understanding for readers by:

- Introducing new (not previously published) numerical and tabular data.
- The addition of qualitative data to the quantitative material to provide a richer picture.
- Placing an emphasis on what the information means for patients and consumers.

Many chapters in this report deal with highly technical aspects of safety and quality. All authors have worked to make the topics interesting to a wider audience while also remaining relevant for those working in the field of safety and quality. Each of the chapters provides only a window into their subjects. For many chapters available information was incomplete and some solutions were

unclear. The Commission urges participation of readers in future work both to build a richer picture of safety and quality and to improve it.

There are many exciting and positive elements within this report. However, our windows also shine some light on the gaps and the problems. Not to describe these would be a disservice to our patients, who suffer when there is a gap between the quality and safety of the health care they receive and that which could be achieved. Nonetheless, this report captures exciting and innovative work currently being conducted to improve the safety and quality of the Australian healthcare system, as well as clearly making the case for continued action and attention in this vital area.

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2

Healthcare Rights

Will patients' rights be respected?

A patient-centred health system is known to be associated with safer and higher quality care. Although patient satisfaction with health services in Australia is generally high, recent research suggests that patients' experiences are not always valued and that their expectations are not always met. This does not necessarily lead to poor clinical outcomes for the individuals concerned, however making a strong and consistent effort to respect patients' expectations through a charter of rights is indicative of a patient-centred health system.

The Commission has developed the Australian Charter of Healthcare Rights to underpin the provision of safe and high quality care and support a shared understanding of the rights of patients and consumers between those seeking health care and those providing health care.

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Patient rights in Australia

In Australia, charters of patients' rights at the state and territory level have been the main instruments to provide information about the rights of patients in the health system. Since 1993, all states and territories have been required under the Australian Health Care Agreements to have a public patients' charter in place. In addition, a charter for patients in private hospitals has been developed, as well as other instruments, such as health professional codes of ethics that provide information about patient rights.

While other mechanisms to protect human rights in Australia have increasingly been gaining momentum, most do not apply to healthcare rights. For example, two state and territory jurisdictions now have bills or charters of human rights in place (Australian Capital Territory in 2004 and Victoria in 2007) and they are currently being explored in New South Wales and Western Australia. Both the ACT Bill of Rights and the Victorian Charter of Human Rights and Responsibilities are focussed on civil and political rights drawn from the International Covenant on Civil and Political Rights [1] [2]. While some of the rights set out in the legislation from the ACT and Victoria overlap with the rights of patients (e.g. no medical or scientific experimentation or treatment without free consent in the ACT Bill of Rights), generally these instruments do not include rights specifically related to health care.

There are also a number of core international statements that protect the right to health, to which Australia is a signatory. These include the *Universal Declaration of Human Rights* and the *International Covenant on Economic, Social and Cultural Rights* [3] [4] [i]. These international statements provide broad guidance about the right to health, but do not provide detail about the specific features of the way in which health care should be delivered.

Therefore, in the absence of any other directly applicable human rights oriented frameworks, patient charters will continue to have an important role in delineating patient rights.

The Commission's work in healthcare rights

- The Commission has worked with a range of consumers and health professional organisations to develop the Australian Charter of Healthcare Rights, a document that has wide support within the health system.
- The Commission will continue to work with consumer groups, government departments, healthcare providers, clinicians, accreditation bodies, health professionals, education providers and others to build the Charter into the systems and processes that drive health care.
- The Commission is starting to explore ways to measure the experiences of patients nationally and across all parts of the healthcare system.

The Australian Charter of Healthcare Rights

Although public patient charters have been in place in states and territories for some time, their scope and use have been variable. Prior to the Australian Charter of Healthcare Rights, there has not previously been national agreement about the rights of patients and consumers. The Australian Charter of Healthcare Rights has been developed by the Australian Commission on Safety and Quality in Health Care because the Commission considers that a uniform statement of patient rights is a basic requirement for a safe and high quality health system. In developing the Charter, the Commission worked closely with consumer organisations, such as the Consumers' Health Forum, which provided considerable input and assistance.

The primary purpose of the Charter is to provide information about the rights of patients and consumers to underpin the provision of safe and high quality care and to support a shared understanding of the rights of people receiving care. The communication role of the Charter makes it an important component of a stronger, more patient-centred health system.

AUSTRALIAN CHARTER OF HEALTHCARE RIGHTS

The Australian Charter of Healthcare Rights describes the rights of patients and other people using the Australian health system. These rights are essential to make sure that, wherever and whenever care is provided, it is of high quality and is safe.

The Charter recognises that people receiving care and people providing care all have important parts to play in achieving healthcare rights. The Charter allows patients, consumers, families, carers and services providing healthcare to share an understanding of the rights of people receiving healthcare. This helps everyone to work together towards a safe and high quality health system. A genuine partnership between patients, consumers and providers is important so that everyone achieves the best possible outcomes.

Guiding Principles

These three principles describe how this Charter applies in the Australian health system.

1 Everyone has the right to be able to access health care and this right is essential for the Charter to be meaningful.

2 The Australian Government commits to international agreements about human rights which recognise everyone's right to have the highest possible standard of physical and mental health.

3 Australia is a society made up of people with different cultures and ways of life, and the Charter acknowledges and respects these differences.

For further information please visit www.safetyandquality.gov.au

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTHCARE

What can I expect from the Australian health system?

MY RIGHTS	WHAT THIS MEANS
Access	
I have a right to health care.	I can access services to address my health care needs.
Safety	
I have a right to receive safe and high quality care.	I receive safe and high quality health services, provided with professional care, skill and competence.
Respect	
I have a right to be shown respect, dignity and consideration.	The care provided shows respect to me and my culture, beliefs, values and personal characteristics.
Communication	
I have a right to be informed about services, treatment, options and costs in a clear and open way.	I receive open, timely and appropriate communication about my health care in a way I can understand.
Participation	
I have a right to be included in decisions and choices about my care.	I may join in making decisions and choices about my care and about health service planning.
Privacy	
I have a right to privacy and confidentiality of my personal information.	My personal privacy is maintained and proper handling of my personal health and other information is assured.
Comment	
I have a right to comment on my care and to have my concerns addressed.	I can comment on or complain about my care and have my concerns dealt with properly and promptly.

Patient-centred health care

The Australian Charter of Healthcare Rights exists within the broader context of patient-centred care currently underpinning the development of many health policies. The traditional model of clinical decision-making cast patients as passive recipients of care and assumed that doctors alone were sufficiently informed and experienced to decide what action to take and how to take it. This paternalistic approach is no longer aligned with current patient expectations and priorities: patients now expect to be given information about their condition and treatment options and this extends to their rights and responsibilities as users of healthcare services [5].

Based on extensive research, the Picker Institute has identified eight dimensions of patient-centred care, covering patients' preferences, emotional support, physical comfort, information and education, continuity and transition, coordination of care, access to care and the involvement of family and friends [6]. These dimensions align well with the rights in the Charter.

The eight dimensions of patient-centred care

1. *Respect for patients' values, preferences and expressed needs:* includes respect for individual autonomy, involvement in decision-making, provision of care that respects the dignity of individuals and treating patients as individuals.
2. *Coordination and integration of care:* includes coordination of clinical care, ancillary and support services and front-line patient care.
3. *Information and education:* includes communication about clinical status, progress, prognosis, processes of care, information to facilitate autonomy, self care and health promotion.
4. *Physical comfort:* includes pain management, assistance with activities and daily living needs, hospital surroundings and environment.
5. *Emotional support and alleviation of fear and anxiety:* includes consideration of patient anxiety about physical status, treatment and prognosis, the impact of the illness on themselves and family and the financial impact of illness.
6. *Involvement of family and friends:* includes providing accommodation for family and friends, involving family and close friends in decision-making, supporting family members as caregivers and recognising the needs of family and friends.
7. *Continuity and transition:* includes the provision of information about care after discharge covering issues such as medications, physical limitations, dietary needs, ongoing treatments and services, and access to clinical, social, physical and financial support on a continuing basis.
8. *Access to care:* includes access to the location of hospitals, clinics and physician offices, availability of transportation, ease of scheduling appointments, availability of appointments when needed, accessibility to specialists or specialty services when a referral is made and clear instructions provided on when and how to get referrals.

The experiences of patients receiving care

Current research measuring aspects of patient-centred care has demonstrated that while overall patient satisfaction is generally high, there are specific aspects of care that fail to meet patients' expectations. In many situations the rights of patients as expressed in the Charter are not respected.

In Australia, a number of states and territories have conducted surveys of patient satisfaction. For example, since 2001 the Victorian Department of Human Services has been surveying patients who have recently been in hospital. These surveys have consistently found a high level of satisfaction with overall care provided [7 ii]. A similar survey was conducted in Queensland to measure patient satisfaction in 2005 [8]. The results of this survey indicated that while there is generally a high level of satisfaction with components of care related to the realisation of rights, there are some areas where further work is needed (Figure 2.1).

A number of international studies conducted by the Commonwealth Fund have looked at the views and experiences of citizens in different countries regarding their health systems. These studies show that the experiences of individuals in Australia are similar to those of other countries regarding the way in which their rights are respected (Figure 2.2 opposite) [9 10].

These types of surveys provide a starting point to examine patients' experiences. However, measuring patient satisfaction is not straightforward and concerns have been raised about the meaning and utility of such surveys [11]. While they can provide some information, there is a need and opportunity to explore the experiences of patients more directly to establish whether or not rights are being respected. For example, the Picker Institute is now using surveys that examine the behaviours of caregivers within the framework of the dimensions of patient-centred care. These behaviours are known to be associated with improved outcomes and higher quality of care, and the results of such surveys can act as a framework for quality improvement. These methods could be used in Australia to examine patient experiences in the context of the Australian Charter of Healthcare Rights.

These types of approaches look at the experiences of patients and the way in which rights are respected through the collection of 'patient stories' or the experiences of the patients expressed in their own words. As well as providing information about patients' rights, consideration of patient experiences has also been a factor that has driven much of the recent clinical redesign work in public hospitals in Australia [12].

Figure 2.1: Selected results from Queensland Health Patient Satisfaction Survey, 2006

Question	% of respondents providing a positive response
Respect for your privacy during your stay	92%
Being treated with respect	92%
The way information about your condition was explained to you	87%
Opportunity to ask questions about your medical treatment	86%
How well the purpose of medicines was explained to you	86%
Were you told what to do if you had a problem or needed help after discharge (yes/no)	86%
The way staff involved you in decisions about your care	84%
How well the possible side-effects of medicines was explained to you	77%
Were you given written information about how to manage your condition / recovery at home	66%
Were you aware that you could make a formal complaint in hospital (yes/no)	59%
Where a complaint was made (4% of the total) were you satisfied with the way your complaint was handled (yes/no)	42%

(A positive response is a rating of either 'excellent', 'very good' or 'good', or 'yes' for yes/no questions.)

Figure 2.2: Selected results of Commonwealth Fund international surveys of patients' experiences with the health system

	Australia	Canada	New Zealand	United Kingdom	United States
How often does the doctor explain things in a way you can understand (% always) [9]	79%	75%	80%	71%	70%
How often does the doctor tell you about treatment options and involve you in decisions about best treatment (% always) [9]	66%	62%	67%	54%	61%
When you need care or treatment how often does the doctor give clear instructions so that you know what to do or what symptoms to watch for (% always) [10]	70%	62%	71%	64%	60%
Do you have access to your own medical record (% yes) [10]	40%	34%	45%	28%	51%
Among those without current access, would you like to have access to your own medical record (% yes) [10]	63%	73%	64%	59%	75%

Experiences of patients reported by the Australian Resource Centre for Healthcare Innovations [13]

Karen's story:
'I was very upset about what was going on and the fact that I was sick and stressed and no-one seemed to have any answers and many times I was in tears. I really needed to have someone to talk to, but the nurses were very busy. I was told that "it might just be something that you have to learn to live with". No one seemed to have any empathy.'

Mary-Jane's story:
The care was the best part of the whole stay. They gave you personal attention and if you wanted something, they would get it for you if they could. They also involved my husband. The social worker took the time to explain what was going on to him.'

Willow's story:
'I got no letter or information to go home with … no instructions. They knew that I was a single mum because I explained all that when I went in for the pre-op check. I tried to talk to the specialist but they won't put me through. I am still very confused and worried because I don't know what they did in the operation and don't know if I am fixed now or not.'

How the Australian Charter of Healthcare Rights can contribute to a more patient-centred health care system

One early study of patient-centred care examined the views of nurses, doctors and members of the public regarding how to effectively involve patients in their own health care [14]. This study found that, amongst other things, developing overt contracts in health relationships, having equal communication between patients and professionals and giving patients access to broad-based information were beneficial to healthcare outcomes. In addition, research suggests that in order to achieve patient-centred care, education of both patients and clinicians is required, as neither party is sure about what is expected of them and what to expect from the other [15]. The Charter seeks to address the research evidence from patients' experiences by strengthening the role of patients as partners in their health care, through providing clear information which enables them to know what are acceptable experiences within the health system. In addition, the Charter can serve as a mirror in which health service providers can scrutinise their work and create an ongoing vision towards which the system can continuously progress [16].

What do people think about the Charter?

In developing the Charter, the Commission worked with the Consumers' Health Forum to conduct a wide ranging consultation process that provided a wealth of information about the Charter and the ways in which it could be used and about health rights in general in Australia. A report has been prepared regarding the results of the consultation and how the feedback was incorporated into the development of the Charter [17]. This report was largely focussed on the content of the Charter and how it could be implemented. In addition, other issues emerged from the submissions that are relevant to the contribution of the Charter to a more patient-centred health system. Details of the report are given below.

There is support for the use of the Charter as a way of developing and maintaining a more patient-centred health system

There was strong support for the Commission's initiative to develop a document that provided a unitary statement of health rights applicable nationally and in all settings. A number of submissions included comments that emphasised the potential role of the Charter as a way of making the health system more patient-centred, and increasing communication between patients and providers.

'The Commission's work in this area is an opportunity to establish consistent national principles that can form the foundation for an effective partnership between consumers and health care providers in healthcare. It is an opportunity to recognise the active role consumers can play in accessing quality health care when their rights within the healthcare system are upheld and supported.' (Submission 87, ACT Health)

'The draft Charter provides an opportunity to strengthen the role of consumers in their own health care. Clarifying the role of consumers in making decisions about their care, their rights to equitable access to services and their right to information about their care and treatment options should result in better health outcomes for consumers.' (Submission 86, Consumers' Health Forum)

There is a link between a patient-centred health system and patient rights and responsibilities

One of the major issues that emerged from the consultation process was the balance between rights and responsibilities in the Charter and supporting documents [3]. Many participants thought there needed to be more information in the Charter and supporting documents about the responsibilities of patients. Some of the reasons for this were related to efforts to support the partnership between patients and providers.

'The Charter … [is] based on the understanding that there are responsibilities for both patients and providers. However, specifically stating the responsibilities of the patient (as many of the state charters do) may be a more effective way of promoting this component of the Charter and therefore a partnership between the patient and the treatment team.' (Submission 25, National Breast and Ovarian Cancer Centre)

'The focus on patient responsibilities is too narrow and not adequately addressed in the Charter. We all have a responsibility to maintain, improve or restore our health; to respect the health of others; and to contribute to the efficient operation of healthcare services.' (Submission 21, Gold Coast Health Community Council)

Achievement of a patient-centred health system for all will not be easy

There was wide support for the implementation options discussed in the consultation paper. Respondents considered that the Charter could be built into existing processes such as accreditation and education systems. However, some of the comments in the written submissions also indicated that there are particular groups within the Australian community that are more vulnerable than others. For them, implementation of the Charter in particular, and moving towards a more patient-centred health system in general, will not be easy.

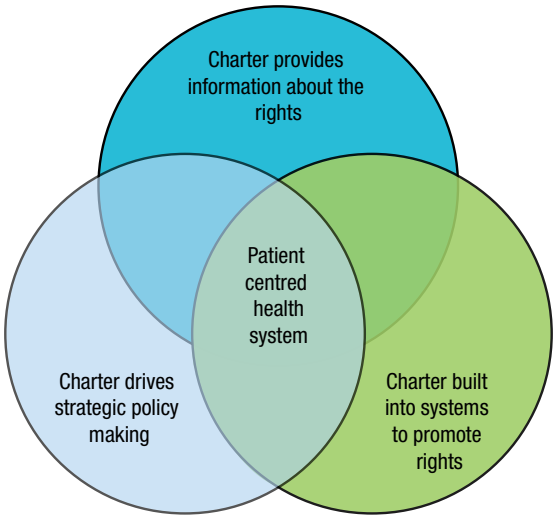
'We believe that the adoption of a national charter, though probably difficult to achieve, would be a significant step in recognizing the rights of people in determining their own health care. Especially for marginalized groups, every effort to enhance and foster patient autonomy, within the ambit of quality of care, is to be encouraged.' (Submission 7, University of Notre Dame, Australia)

'While a patient charter currently exists, our experience indicates that voluntary patients (patients not subjected to the Mental Health Act) receive no information about their rights. While concern has been expressed at a local hospital level, the view seems to be that if you are a voluntary there is no requirement to provide the patient with information about their rights.' (Submission 16, Victorian Mental Illness Awareness Council)

Use of the Charter

The Charter has been developed to support the provision of safe and high quality care and promote a shared understanding of rights among those seeking care and those providing care. There are three major ways that the Charter will contribute to the development of a more patient-centred health system: provide information about rights to patients, consumers and health care providers; be built into systems and processes that support and monitor the rights; and inform strategic planning and policy making (Figure 2.3).

Figure 2.3: Contribution of the Australian Charter of Healthcare Rights to a more patient-centred health system



Provide information about rights

One of the main aims of the Charter is to provide information to patients and consumers about their rights when seeking and receiving health care. Information about rights is generally most applicable close to the time when the healthcare service is received. Therefore, it is logical that healthcare providers and healthcare facilities are responsible for providing this information. The Commission will make the Charter freely available for jurisdictions, health services and healthcare providers to use to inform people of their rights when seeking or receiving health care.

Build into systems to promote rights

The Charter needs to be embedded into systems so that it becomes part of everyday practice. Some of the key ways this can be done are detailed below:

- Incorporate a requirement into accreditation processes that health services demonstrate that they have implemented the Charter.
- Incorporate the Charter into education and training programs for healthcare professionals and managers.
- Include a specific requirement to use the Charter in the Australian Health Care Agreements.
- Make reference to the Charter in health professional codes of practice or professional conduct.

The Commission will be working with relevant organisations to facilitate processes to build the Charter into these systems.

Inform strategic planning and policy making

The Charter needs to be considered when decisions are made. Key target audiences for the Charter include planners and policy makers. They need to be aware of the rights of patients and consumers and to take these rights into account in the development of health policies and plans.

This approach of considering the Charter in policy and planning is similar to the approach taken by the Victorian Government regarding the Victorian Charter of Human Rights and Responsibilities. This Charter requires public employees to act as follows[18]:

- Take human rights into account when decisions are made, advice provided or services delivered.
- Be aware of any changes made to guidelines, policies or the legal framework for their work to take human rights into account.
- Consider that their decisions may be reviewed by the Ombudsman or the courts.

What is needed for the rights of patients to be respected?

Respecting the rights of patients is an activity that should be fundamental to the way in which health services are delivered. The delivery of health services is a complex activity and there are many pressures that affect the nature of the care provided by any particular healthcare professional, at any particular time, to any particular patient. In a patient-centred health system the rights, experiences and views of the patient are at the centre of the care process and drive the way in which care is delivered. To ensure that the rights of patients are always automatically respected, the goal of the health system needs to move towards this model of health care delivery.

The Australian Charter of Healthcare Rights can contribute to this process. The Charter provides a platform for dialogue and communication about health rights between patients, consumers, healthcare providers, healthcare organisations and health planners and policy makers. Embedding the Charter into existing systems and processes will ensure that it becomes part of everyday practice and provides a framework for the way in which safe and high quality health services are delivered in Australia.

The Charter is only one part of a larger drive towards a more patient-centred healthcare system. Measuring patient experience will enable us to not only examine the impact of the Charter, but to also examine whether we have been successful in contributing to a more patient-centred healthcare system.

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Notes

i. The International Covenant on Economic, Social and Cultural Rights contains the most comprehensive international statement regarding the right to health and states that parties to the Covenant recognise 'the right of everyone to enjoyment of the highest attainable standard of physical and mental health' (Article 12.1). The application of this statement is wide ranging, but includes obligations regarding the right of access to and equitable distribution of heath facilities, goods and services.

ii. The survey calculates an overall care index made up of responses on six sub-indices that ask questions about access and admission, general patient information, treatment and related information, complaints management, physical environment and discharge and follow up. The overall care index ranges from 20 to 100. Between 2001 and 2006–7, scores on this index have ranged between 78.1 and 80.2.

iii. In the consultation process the draft Charter was accompanied by a document entitled 'National Patient Charter Principles'. It had been developed to explain and support the Charter. The draft Charter was specifically designed to express the rights of patients, and included only statements of patient rights. The Principles mainly included statements of patient entitlements, together with a small number of points that referred to the responsibilities of patients.

3

Patient Identification

Will patients be correctly identified?

An essential part of receiving safe care is ensuring that the right care is provided to the right person. Unfortunately, this does not always occur. While uncommon, the failure to correctly identify patients and match that information to an intended clinical intervention continues to result in wrong person, wrong side or wrong site procedures, medication errors, transfusion errors and diagnostic testing errors. Frequently these mismatches between patients and their care do not result in harm, however in some cases they have tragic consequences. Errors involving a mismatch between patients and their care should not occur. All health facilities require systems to match a patient's identity to the correct clinical intervention. To set up reliable systems to eliminate these preventable errors we need to know more about how and why mismatches occur.

Dr Michael Smith For the Australian Commission on Safety and Quality in Health Care
Dr Nicola Dunbar Australian Commission on Safety and Quality in Health Care

The scale of the problem

The provision of modern health care is very complex. Patients are cared for as inpatients, as outpatients and in other community settings. Consideration of the scale of identification processes in hospitals is illuminating.

Every day in a typical Australian hospital hundreds of unwell, frequently anxious people arrive for admission, go to outpatient clinics, go to the emergency department, go to the laboratories and investigative departments for planned tests and to other hospital departments for complicated treatments. Every one of these hundreds of people will need to be identified, have paperwork processed and their details entered into the computer systems.

At the same time the hundreds of other patients *already* in the hospital are immersed in a hive of activity. They are being moved from their wards to the operating theatre, to the X-ray department, to the various procedure areas like gastroenterology or cardiology and to a vast number of other treatment areas for physiotherapy, rehabilitation or other essential care. Other patients remain in their beds in one place, but even these people are having blood and other specimens taken for testing and are receiving therapies of varying types and complexity.

All of these people need to be fed, cleaned and cared for. In total, they will receive tens of thousands of doses of medication during the day.

Every day, all of this processing, transporting, testing, treatment and general caring is being done by thousands of staff – clerks, orderlies, nurses, allied health workers and doctors – each of whom will come into contact with dozens of different patients.

The potential for confusion and error is enormous.

In each and every one of the thousands of interactions between a staff member and a patient that occurs in our hospitals every day, there is a need to identify the patient involved. Often, patients are able to tell staff who they are but they may not be well informed about all the details of their investigative procedures or treatments. Patient participation may also be impaired by confusion, illness and anxiety. High workloads, staff haste and miscommunication between staff can also give rise to misunderstandings about the identity of patients. A reliable way of identifying patients is essential and hospitals need to have consistent processes to ensure identification occurs and occurs correctly.

The Commission's work on patient identification

The Australian Commission on Safety and Quality in Health Care has:

- Developed specifications for a standard national patient identification band.
- Developed protocols to support correct matching of patients to their care in the areas of radiology, radiation oncology, nuclear medicine and oral surgery.
- Reviewed the implementation of the Ensuring Correct Patient, Correct Site, Correct Procedure Protocol in Australia.

Future work on patient identification by the Commission will include the development of a national standard for patient identification and exploration of the use of technological processes to support correct patient identification.

The nature of the problem

Errors in patient identification only lead to harm, or the potential for harm, when incorrect information is used to link a particular individual to an action or activity. Therefore the patient safety risk associated with patient identification can be considered as a *mismatching* between a given patient and components of their care, whether those components are diagnostic, therapeutic or supportive.

Information about patient identification adverse events and near misses is generally focussed on the outcome of the mismatch (such as the administration of the wrong medication) for the patient. The failure to correctly identify the patient or the treatment he or she is to receive is considered as one of a number of underlying or contributory factors that lead to the adverse event that is recorded [1]. For this reason it can be hard to identify when there is a mismatch between patients and their care. This has implications when trying to understand how patient identification errors occur and the reasons for their occurrence.

Initial national and international responses

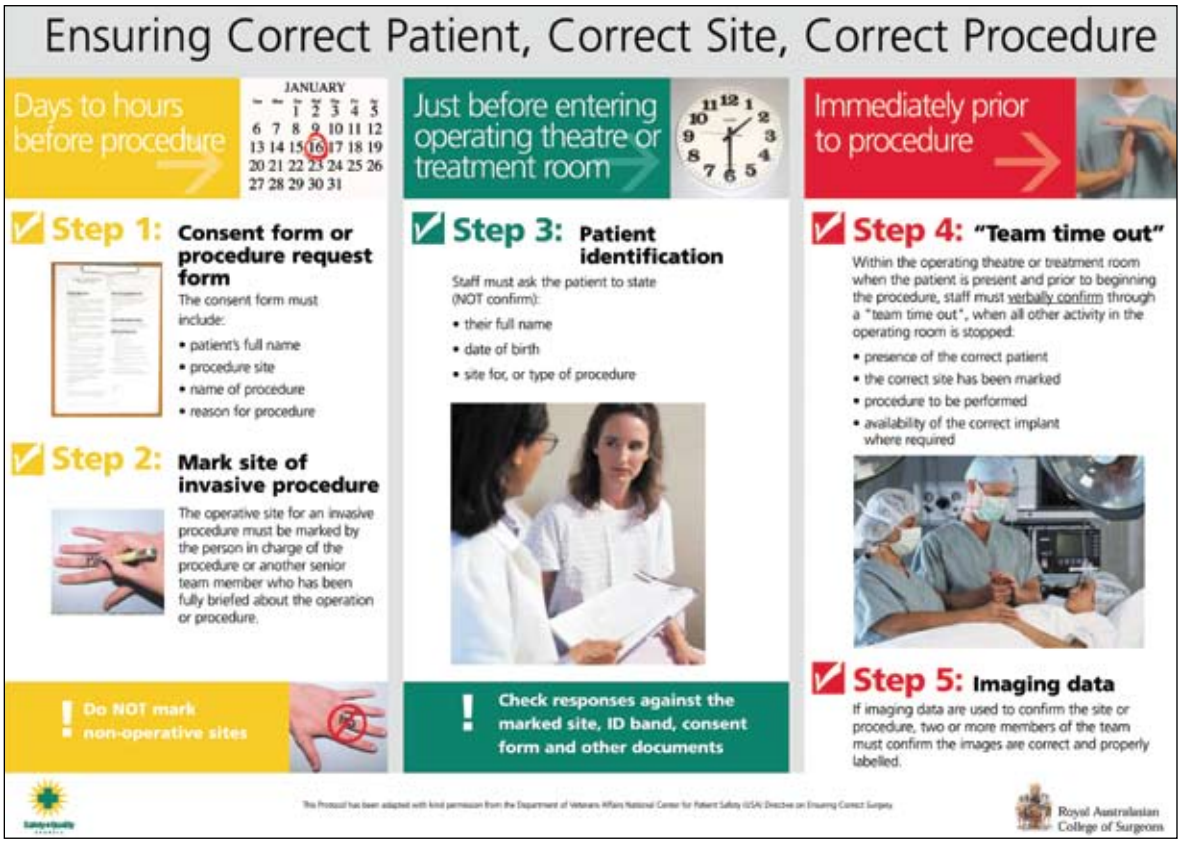
Patient identification, or specific issues associated with it such as correct site surgery, has been identified as a key patient safety goal or program by all of the major international patient safety agencies, including the World Health Organisation, United States Joint Commission, United Kingdom National Patient Safety Agency and the United States National Patient Safety Center.

One of the first organisations to identify that mismatching between patients and their care was a significant patient safety risk was the Joint Commission, the leading accreditation agency for healthcare facilities in the United States. In 1998 it issued an alert based on 15 cases of wrong site surgery [2]. A follow-up alert was issued in 2001 reporting on 150 cases [3]. Patient identification was specified as one of the Joint Commission's National Patient Safety Goals in January 2003 and healthcare organisations accredited by it are surveyed for implementation of these goals [4]. The Joint Commission also released the Universal Protocol for Preventing Wrong Site, Wrong Person, Wrong Procedure Surgery™ in July 2003. The use of this protocol was required in accredited organisations from July 2004 [5].

Also in 2004, the Department of Veteran's Affairs National Patient Safety Center in the United States released the Ensuring Correct Surgery Directive after determining that wrong surgeries were being reported at a rate of approximately one in 30,000 surgeries, or about one per month [6] [7].

In Australia wrong site surgery and other patient mismatching errors were also starting to be reported at this time. While there was no national reporting of adverse events, Victoria reported in 2002–2003 on 16 procedures involving the wrong patient or body part [8]. By 2003–2004 a number of other states had established their own sentinel event programs and published data [8-12].

One of the responses to the reports of procedures on the wrong patient or body part came from the former Australian Council on Safety and Quality in Health Care. In conjunction with the Royal Australasian College of Surgeons, the former Council developed the Ensuring Correct Patient, Correct Site, Correct Procedure Protocol. The Protocol is available from the Commission's website www.safetyandquality.gov.au Use of this protocol in jurisdictions was required by Health Ministers from 2004.



Errors involving mismatching of patients and their care still occur

Despite these initiatives, errors involving the mismatching of patients to their care continue to occur. Generally these mismatches do not cause harm [13]. However in some cases the outcomes can be significant for the patient.

Australian media reports on wrong site surgery

Wrong surgery ordeal

'Perth doctors cut open a female patient and tried to remove a hernia she didn't have..... The patient did not speak English and had no interpreter during her consultations with doctors. She had been waiting in agony for two days in an overcrowded emergency department before being transferred to a ward. She was already on the elective surgery waiting list at the same hospital for a prolapsed bowel.'
Sunday Times, Anthony Deceglie
2 March 2008

Devastated nurse admits bungling blood transfusion

'A Sydney nurse who administered a fatal blood transfusion to an elderly woman admitted yesterday she failed to follow protocols, ignoring the most crucial procedure of checking that the blood type matched that of the patient. … [The nurse] could not explain how she ignored the most crucial part of the protocol. She said she gave it no consideration, even signing her name against the question on the form: "Is this the correct patient?"'
Sydney Morning Herald, Ellen Connolly
28 September 2001

We have some information to help us understand the continuing occurrence of these errors, however there are many gaps in our knowledge, particularly about the way in which patient mismatching errors occur in Australia. Nonetheless, it is possible to gain some understanding of the persistent and wide ranging nature of this problem by looking at the data that is available in Australia and internationally.

Patient mismatching continues to be reported in Australia and the United States

Much of the information about the number of patient mismatching errors comes from incident (adverse event) reporting systems. Reporting incident data is known to underestimate the number of errors or adverse events, however it does highlight the continuing occurrence of particular patient safety problems [14].

As discussed in more detail in Chapter 9 of this report, national collection and reporting of sentinel events in Australia was agreed by Health Ministers in 2004. Three of these sentinel events have links to incorrect patient identification:

1. Procedures involving the wrong patient or body part.
2. Haemolytic blood transfusion reaction resulting from ABO incompatibility.
3. Infant discharged to the wrong family.

As is clear from the data presented in Chapter 9, the actual number of haemolytic blood transfusion reactions and infants discharged to the wrong family is generally very low and therefore the data for these sentinel events are not discussed further in this chapter. It is recognised, however, that patient misidentification in blood administration remains a significant concern.

A national report of sentinel event data, titled *Sentinel events in Australian public hospitals 2004–05,* was released by the Australian Institute of Health and Welfare and Australian Commission on Safety and Quality in Health Care in 2007 [15]. All States and Territories and some private hospital providers have now provided sentinel event data for 2005–06 and 2006–07 and this is presented for the first time in Chapter 9 of this report.

Procedures involving the wrong patient or body part were by far the most common sentinel event for each of the three years for which national data is available (Figure 3.1).

Figure 3.1: Sentinel events concerning procedures involving the wrong patient or body part reported in Australia 2004–2007

Year	Number of wrong patient / body part sentinel events	Total number of sentinel events	Percentage of total sentinel events
Sentinel events in public hospitals			
2004–05	53	130	41%
2005–06	66	139	48%
2006–07	159	257	62%
Sentinel events in private hospitals			
2005–06	13	44	30%
2006–07	28	67	42%

As noted earlier, in addition to the three years of national data, some of the States and Territories have been publicly publishing their own sentinel event reports for a number of years [8 9 10 11 12 16]. Numbers of procedures on the wrong patient or body part range between 0 and 45 (for six months).

It is difficult to draw any specific conclusions from this sentinel event data because the number of reports from individual jurisdictions is small and different definitions are used to define the events. For example, prior to 2006–2007, NSW only included events that occurred in operating theatres in wrong patient or body part sentinel event reports, while some other jurisdictions have always included events that occur in radiology and other places [8 10 12 16]. The increase in the number of wrong patient or body part events in the national sentinel event figures in 2006–07 is largely due to this change in definition.

In the United States, wrong site surgery is also the most commonly reported sentinel event (625 of 4817 or 13% of all events reviewed by the Joint Commission) [17]. The number of wrong site surgery events reported in the United States has been fairly stable since 2000.

The data from sentinel event reporting indicate that patient mismatching errors continue to occur. However, to go further than this and use sentinel event reports as a measure of the rate of patient mismatching errors is problematic. Charles Billings, who designed, tested and managed the Aviation Safety Reporting System in the United States, has spoken robustly against using incidents in this way:

> **'Counting incidents is a waste of time. Why? Because incident reporting is inherently voluntary. Because the population from which the sample is drawn is unknown and therefore cannot be characterized and because you lose too much information and gain too little in the process of condensing and indexing these reports' [18].**

Billings' view is that even mandatory reporting systems such as those used in Australia eventually become voluntary; this may be because of inertia among those who are supposed to report incidents, constraints such as shortage of time, or ad hoc decisions that individual incidents fall outside the reporting guidelines [14 18].

These problems indicate that additional methods are needed to measure the extent of patient mismatching errors. Some of this work is starting to occur. In the United States and the United Kingdom reports have been published looking at the incidence of patient mismatching and identification errors using medico-legal claims, reviews of clinical records, surveys, interviews and audits [19–23]. This is promising, however it is still not clear what is the best method for measuring the rate of patient identification errors. For example, for rare and serious events self-reporting may be a valid process when the harm is clearly evident and definition of events is clear [24].

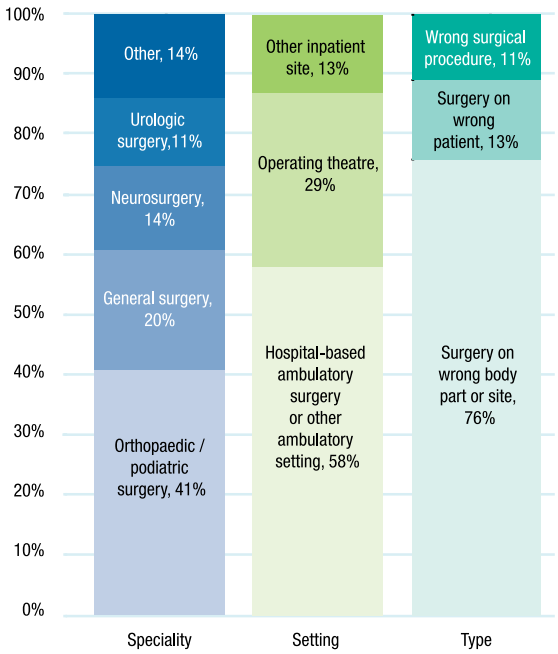
While some mismatching errors (such as wrong site surgery) may fall into this category, others (e.g. diagnostic imaging of the wrong site) are more common and do not cause harm. For these more common events observational processes would give a more accurate picture of their rate of occurrence. However this is resource intensive [14].

Patient mismatching is more common in certain types of surgery

In 2001 the United States Joint Commission reported the results of 126 root cause analyses performed on wrong site surgery events. The occurrence of wrong site surgery varied depending on the type of surgery and the setting in which the surgery was done (Figure 3.2). Of particular interest is that only 29% of the wrong site surgery events reviewed occurred in operating theatres. This suggests that the initial focus on operating theatres with the various correct site surgery protocols needs to be expanded.

More recent information about the types of wrong site surgery events comes from the New York Patient Occurrence Reporting and Tracking System [25]. In 52 cases of wrong patient, site or side surgery only 4% were on the wrong patient. Those involving the wrong site (44%) or side (52%) were much more common. Of the 52 reported wrong surgery events, the most common were: the spine (15% of cases), finger (13%), ureter (13%) and chest or rib (12%).

Figure 3.2: Results of root cause analyses on 150 wrong site surgery events, classified by speciality involved, the setting where the event occurred and the type of event, United States Joint Commission



Patient mismatching errors are a problem outside surgery

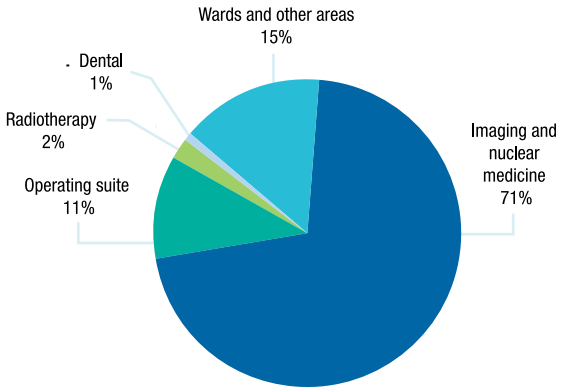
It has been known for some time that mismatching between patients and their care is common outside surgery. In 2003, the United States National Center for Patient Safety reported the results of a review of 100 root cause analyses involving patient identification [26]. Invasive procedures and surgery comprised only 19% of the total (Figure 3.3).

Figure 3.3: Patient identification root cause analyses classified according to main clinical activity, January 2000 – March 2003, United States National Center for Patient Safety

Type of clinical activity	Percentage of total number of root cause analyses
Laboratory activity (blood transfusions)	25%
Medication administration	22%
Invasive procedures and surgery	19%
Imaging and X-rays	17%
Admitting and record documentation	11%
Laboratory activity (pathology)	6%

In NSW, it has also recently been reported that a very high proportion of incident reports classified as wrong patient /site/ procedure are associated with diagnostic imaging such as X-rays and scans (Figure 3.4) [16 27]. As well as reflecting the potential for errors to occur in these clinical areas, increased reporting is likely to have occurred in response to a program within NSW Health to highlight and address mismatching in areas such as radiology, radiation oncology and nuclear medicine [28].

Figure 3.4: Types of procedures involving the wrong patient or body part January – December 2007, NSW Department of Health



Why might these errors occur?

Because patient mismatching can occur in all types of clinical activities, the reasons for the occurrence of these errors are wide ranging. Some information can be obtained about the causes of mismatching from examining the errors that have occurred.

Documentation plays an important part in mismatching errors

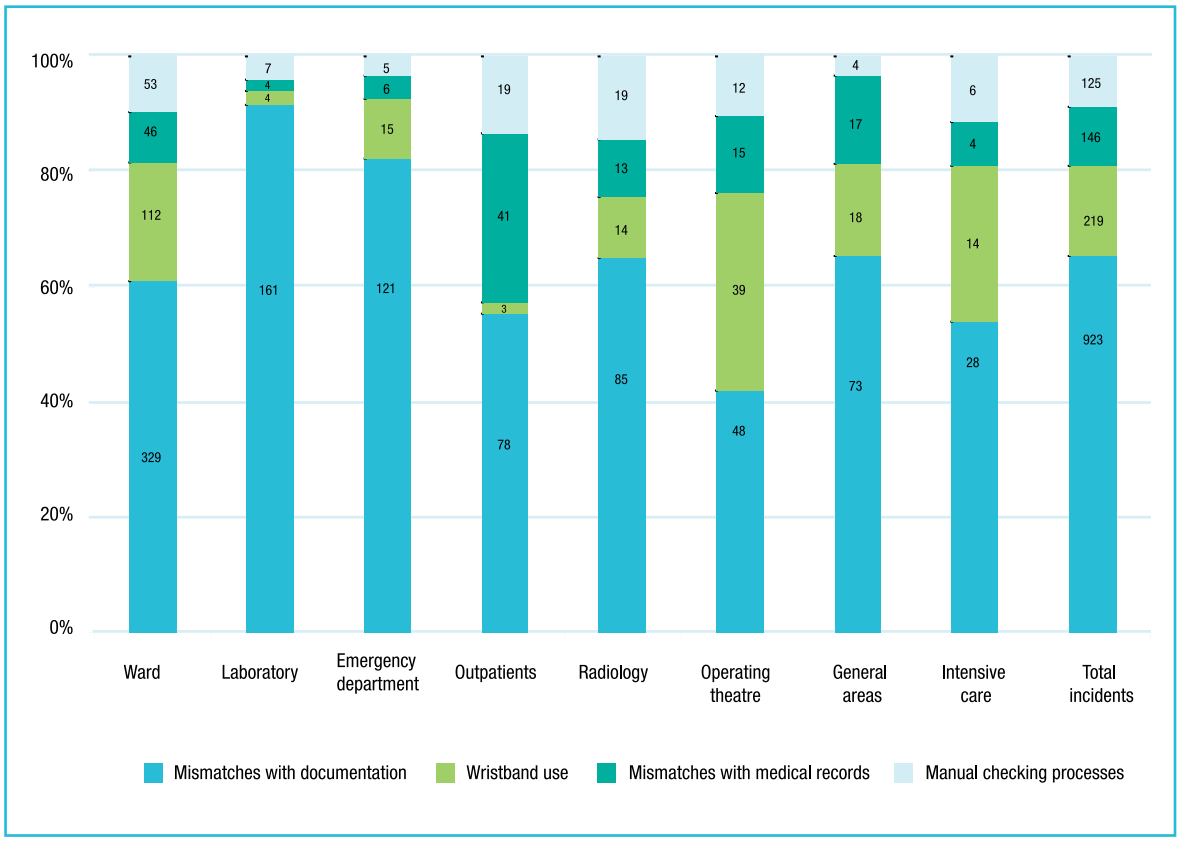
The National Reporting and Learning System, a voluntary sentinel event reporting system operated by the National Patient Safety Agency in the United Kingdom, reported on a review of patient identification incidents that occurred in acute or general hospitals or mental health settings. These incidents were classified according to one of four main themes [13]:

1. Mismatches between patients and documentation on their samples, records, blood transfusion samples and products, and medication, such as documentation having the wrong patient details or insufficient identifiers to allow accurate matching to the appropriate patient.
2. Missing wristbands or wristbands with incorrect data on them.

3. Mismatches between patients and their medical records e.g. where a patient's records or results are filed in another patient's medical records, or where the wrong medical records are with a patient.
4. Failures in the manual checking processes e.g. where procedures for checking identity were not used.

Figure 3.5 shows the proportion of incidents in each of these categories according to the location in which the error occurred for the eight most common locations where incidents occurred (this comprised 96% of the 1469 incidents reviewed). This figure illustrates the range of settings in which mismatches can occur and the different types of mismatches. Errors in documentation were by far the most common event, particularly in laboratories (91% of total number of errors in laboratories compared to 61% of ward errors). Laboratories in particular are reliant on documentation as the sole patient identifier.

Figure 3.5: Number of patient identification incidents by error type and location of incident, November 2003 – July 2005, United Kingdom National Reporting and Learning System



Some information about reasons for errors comes from root cause analyses

Current understanding of why patient mismatching errors happen has mainly come from root cause analyses or other types of investigations that are done after an event has occurred. Contributing factors identified when patient mismatching occurs include [3 10 12 29 30]:

- Poor communication between wards/departments when transferring and transporting patients.
- Poor communication within and between treating teams.
- Problems communicating with patients who do not speak English.
- Time pressures to start or complete procedures.
- Poor understanding of the risks associated with incorrect patient identification and a culture that does not value standardised processes for checking identity.
- Failure to involve the patient (or family or carer) in the process of checking identity.
- Lack of training and knowledge about policies for checking identity.
- Lack of policies or not following existing policies for checking identity, including correct site surgery guidelines.

Not following patient identification policy is a key contributing factor

Failure to follow existing policies is an obvious contributing factor to the occurrence of patient mismatching errors. The 2007 report on national sentinel event data in Australia found that failure to follow existing policies was the most common contributing factor [15].

Information about the extent to which patient identification procedures are followed can come directly from audits of compliance with the Ensuring Correct Patient, Correct Site, Correct Procedure Protocol which includes the following five steps:

1. Complete consent form.
2. Mark the site of the invasive procedure.
3. Identify the patient.
4. Conduct a team time out to confirm details of the procedure and patient.
5. Check imaging data, if applicable.

One Australian state has conducted two state-wide audits of compliance with two of the key steps in this protocol in operating theatres: marking the site and conducting a team time out. These observational audits were conducted in most health service regions within the state in 2006 and 2007. In 2006, 682 surgical cases were audited and 649 in 2007.

Figure 3.6 summarises the results of the audit for these two years in health regions that had at least 30 audited surgical cases. There is considerable variation in compliance with these aspects of the protocol across the state and in performance over the two years. This state has used the information to focus on improving compliance and it is likely that this degree of variation is no different in other Australian states or territories.

New initiatives to reduce mismatching

Mismatching between patients and their care continues to occur. While the initiatives that were first introduced to address wrong site surgery were positively received and widely disseminated, errors are still occurring in surgical settings and it is now well recognised that patient identification errors are even more common outside operating theatres. New strategies are needed to achieve the goal of eliminating patient mismatching errors.

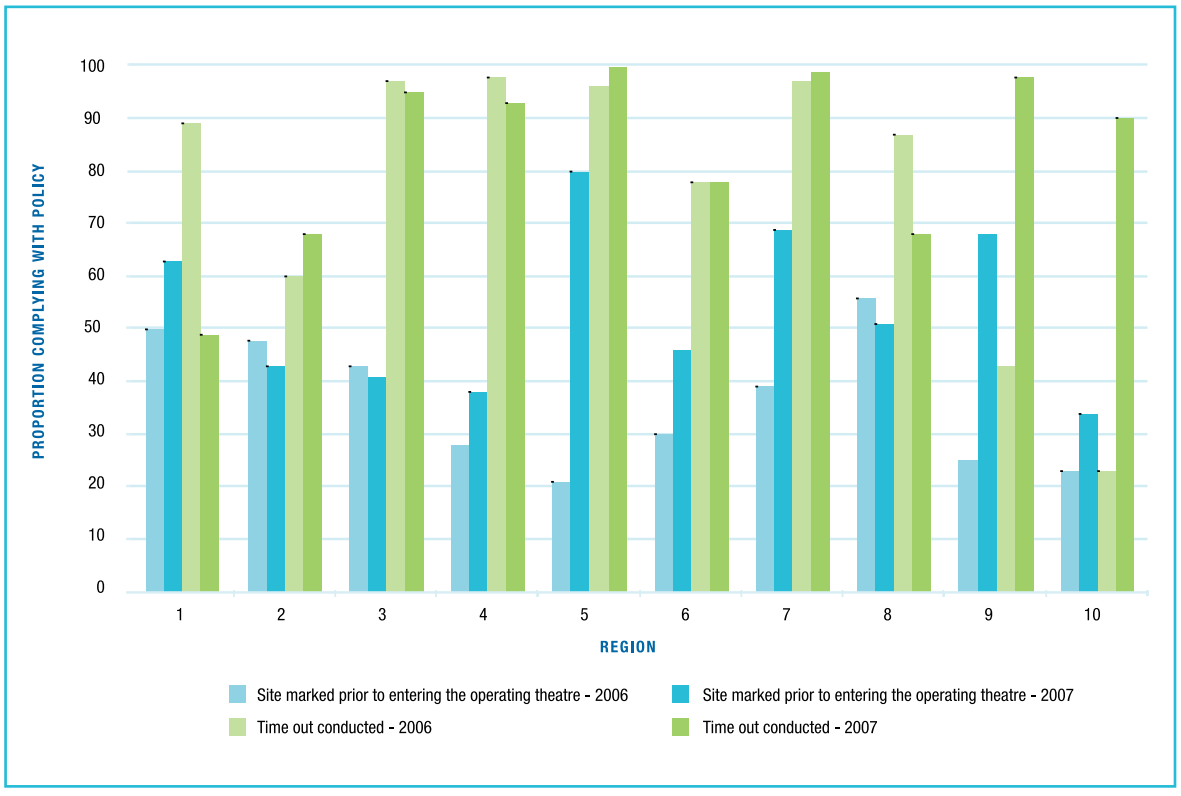
Internationally there is recognition that this problem still exists. In 2007, the United States Joint Commission held a Wrong Site Surgery Summit to review the Universal Protocol and the Joint Commission is now looking at refinements to the protocol [5]. In April 2007 the World Health Organisation and the Joint Commission International Center for Patient Safety launched nine Patient Safety Solutions, two of which are related to patient identification [31 32]. The United Kingdom National Patient Safety Agency has standardised the use of patient wristbands in National Health Service facilities in England and Wales [33].

Another approach that has been found to contribute to improved patient safety generally is increasing the involvement of patients, families and carers in the patient's care [34]. In Australia, the former Australian Council on Safety and Quality in Health Care developed 10 Tips for Safer Care, a document that provides advice to patients about actions they can take to improve the care they receive, including advice about confirming the site of surgery or procedures [35].

The Australian Commission on Safety and Quality in Health Care is contributing to the prevention of patient mismatching errors in four main ways, by:

1. Developing a standard, as part of the Australian Health Standards, for ensuring compliance with patient identification best practice through the accreditation of health services.
2. Providing practical tools for jurisdictions and health care facilities responsible for correctly matching patients, for example, including specifications for a standard patient identification band.
3. Contributing to our understanding of the nature of mismatching errors by funding projects to develop methodologies to better learn from incident reports and investigations into patient identification errors.
4. Exploring options for improving the identification process through use of technologies such as bar codes and radio frequency identification devices.

Figure 3.6: Proportion of surgical cases complying with required steps to mark the site prior to entering the operating theatre and conduct a team time out in one Australian state



Will we be able to eliminate patient mismatching errors?

It is clear that while errors involving a mismatch between patients and their care are not common, they continue to occur and have proven hard to eliminate. Patient identification and patient mismatching errors need to remain patient safety priorities.

Anecdotally, the strategies initially introduced to address wrong site surgery have been reported to be successful. However, evaluation of the impact of these strategies is difficult and there have not been any peer-reviewed reports of their effectiveness [36]. More recent efforts to reduce mismatching errors have been more broadly based and have focussed on some of the underlying mechanisms that are used to establish identity, such as patient identification bands. Patients, their families and carers can also play an important role in preventing these errors. Awareness of the risk of mismatching can increase vigilance to ensure individuals are correctly identified. The broader increased focus on patient-centred care within the health system should assist in supporting patients to take an active role in their care, including making sure that they and their treatment are correctly identified and matched.

These approaches are useful given the wide ranging nature of these errors, but more knowledge is needed about the rate of errors, why they occur and whether the preventive strategies that are being put forward are effective.

Eliminating errors associated with mismatching patients to their care is a long term goal that will require local action from all participants in the healthcare system, supported by jurisdictional and national initiatives and systems. The matching process must become reliable and automatic. Only then will it be possible to eliminate these errors.

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4

Medication Safety

Will adverse drug events be reduced?

Medicines are the most common treatment used in health care and medication is more rigorously tested than almost all other healthcare interventions. Because they are commonly used, medicines are associated with more adverse events than any other aspect of health care. The prevalence of medication errors, where mistakes are made anywhere in the supply of medicines, is of particular concern because most medication errors could be avoided.

Australia is tackling some of the issues associated with medication errors through systems based solutions, such as the standardised National Inpatient Medication Chart, which is helping Australian hospitals reduce the risk of harm to hospitalised patients from medicines. Efforts to reduce harm from medicines in the community are also being implemented through the provision of medication review services, consumer reporting of adverse medicine events and activities to promote quality use of medicines.

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Medicines in Australia

Medications are the most prevalent health therapy in Australia. In any two week period, around seven in ten Australians will have taken at least one medicine. For older Australians, that increases to nine in ten [1].

Australia has a system which generally promotes safe delivery of medicines. Before they reach the market, medicines are assessed by the Therapeutic Goods Administration (TGA). The TGA regulates where and how products can be sold, e.g. prescription only, pharmacy only or freely available. Australia has a highly trained and professional health workforce which prescribes, dispenses and, where appropriate, administers medicines.

Australia also has well established independent sources of information to support appropriate medicine use including Australian Approved Product Information, Consumer Medicine Information, the Australian Medicines Handbook [2], Therapeutic Guidelines [3], Australian Prescriber and RADAR (Rational Assessment of Drugs and Research).

The Commission's work on medication safety

The Commission's medication safety program includes:

- Maintaining the National Inpatient Medication Chart (NIMC), including by conducting a post-implementation review and establishing an online issues register to inform future revisions of the chart.
- Making available a suite of specialist and ancillary standard medication charts in areas of high risk, such as paediatrics and insulin, to complement the NIMC.
- Extending the National Health and Medical Research Council's venous thromboembolism prophylaxis program to the private sector.
- Supporting initiatives to promote systems improvements in medication safety, such as standardising terminologies, abbreviations and symbols used in the prescribing and administration of medicines.

Sometimes people experience harm from medicines

The vast majority of medicines relieve symptoms, improve the quality of peoples' lives and may prevent, or cure, diseases. But like most health care, there is a risk of harm associated with the use of medicines. Harm may occur because of an error in the delivery of medicines, such as the wrong medicine being prescribed or used, or the right medicine being used inappropriately. These types of errors are described as adverse drug events. Harm may also occur because of side effects of medicines (also known as adverse drug reactions).

Most people take medicine at some point during the year; whether it be prescription, over-the-counter or complementary medicines or combinations of these. For some conditions, two or three different medicines taken together are recommended. For people who have more than one disease, this often results in them taking five or more medicines, which increases the likelihood that things can go wrong with medication.

Sentinel event reporting is one way in which serious adverse events are reported to the public. 'Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs' is one of the eight national sentinel events. In 2005–06, five deaths were reported, while in 2006–07, eleven such deaths were reported. Sentinel event reporting only captures a tiny fraction of adverse events attributable to medicines. It is estimated that over 1.5 million Australians suffer an adverse event from medicines each year [4] resulting in at least 400,000 visits to general practitioners and 140,000 hospital admissions. The cost is significant. Cost estimates for medicine related hospital admissions were $380 million in 2002 [5].

The scale of medicine adverse events in Australia

Figure 4.1: Types of medication-related hospital admissions: results from Australian studies (each column represents a study) [5]

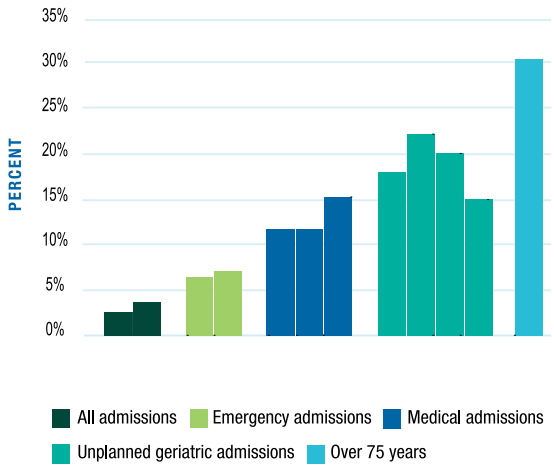
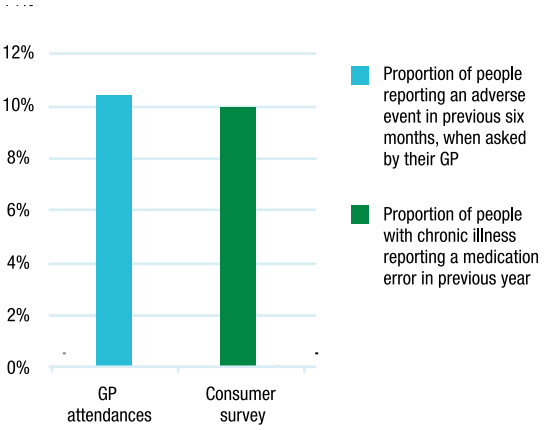


Figure 4.2: Adverse medication event and error rates in the Australian community [6 7]



The reasons for incorrect medication use in acute care

The most common cause of medication error in acute care is a slip error (doing the wrong thing) or a lapse error (not doing something) [8]. Slips by doctors often occur while rewriting drug charts and slips by nurses usually happen when they are checking the name and dose of a drug prior to administration. It has been estimated that between 2% and 5% of Australian drug charts contain prescribing errors, while administration errors occur at a rate of between 5% and 18% [5]. Medication errors are therefore a significant problem for Australian hospitals and there is evidence to show it is also a problem in other settings of care.

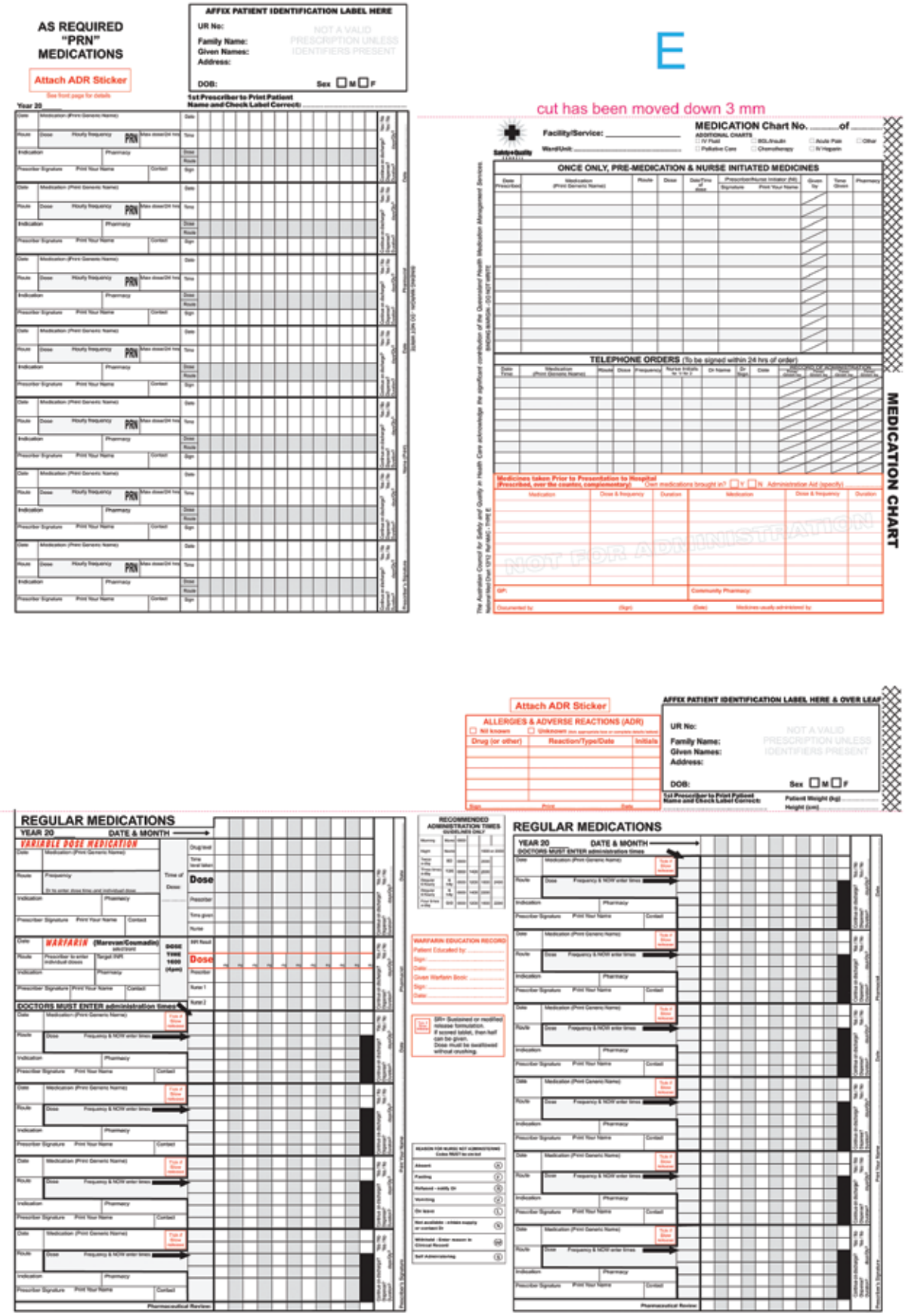
Analysis of medication errors in Australian hospitals showed that failure to read or misreading of charts is the most common causal factor contributing to incidents [9 10]. This is significant given that charts are the main means of communicating medication orders. Other studies confirm that most errors are due to slips in attention that occur during routine prescribing, dispensing and administering, with errors being significantly more frequent out of hours when busy, distracted staff are often dealing with unfamiliar patients [8]. They also confirm that the causes of error are usually multifactorial involving working environment factors as well as team, individual, patient and task factors [11].

Improving systems: The National Inpatient Medication Chart is designed to improve medication safety in acute care

Systems solutions, such as standardisation, or making things as routine as possible, are recognised as the best way to overcome slips and lapses, which are the most common causes of medication errors in acute care [11 12]. In response to this, in April 2004, Australian Health Ministers agreed that all public hospitals should use a common medication chart.

The National Inpatient Medication Chart (NIMC) was implemented during 2006 and 2007, and is now being used nationally in all public hospitals (with some limited variation) and in a large number of private facilities. The NIMC (Figure 4.3) standardises communication of medication information between doctors, nurses and pharmacists, with the aim of reducing harm to patients from medication errors. Pre- and post-implementation audits of charts, conducted by the former Australian Council for Safety and Quality in Health Care, demonstrated both improvement in documentation and reduced risk to patients.

Figure 4.3: The National Inpatient Medication Chart



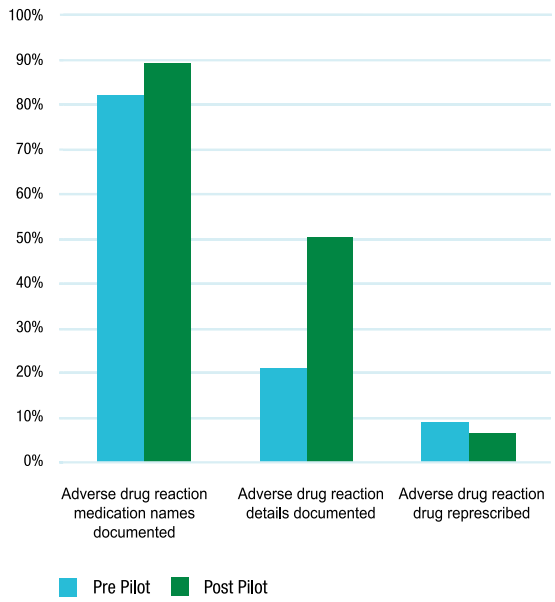
Based on data, prior to the NIMC implementation, comparing 21,000 medication orders at 31 sites with 35,000 medication orders from 300 sites after implementation, the implementation of the NIMC has improved the safety of some important aspects of prescribing in most hospitals.

The NIMC is reducing the risk of patients getting a drug to which they have an allergy

One of the most frequently occurring and avoidable adverse drug events is the re-exposure of patients to medications that have previously been identified as causing an adverse drug reaction (ADR), such as an allergy. The documentation of this information so that it is visible to all prescribers, nurses and pharmacists on patient medication charts is a significant safety feature of prescribing systems.

Figure 4.4 demonstrates that documentation related to adverse drug reactions improved following the NIMC pilot. The recording of medication which had previously caused an ADR improved compared with baseline, while documentation of ADR details also improved. Most importantly for patient safety, the re-prescribing of medicines to which patients had previously experienced an ADR was reduced.

Figure 4.4: Documentation of adverse drug reactions pre and post NIMC pilot



The NIMC results in clearer prescribing

The clear documentation of drug names, forms (especially controlled or sustained release), routes, doses and frequencies are essential for safe and effective communication of prescribing decisions and instructions for nurse supply and pharmacist dispensing.

A designated check box was included in the NIMC to indicate if a sustained or controlled release formulation of medication was to be administered. The inadvertent administration of standard release medication can have adverse effects on a patient. In all but one of the seven jurisdictions which reported this data, the proportion of standard release medications with the formulation indicated had increased to between 31% and 54% of cases from a low of 18% at baseline.

Six of the seven sites that reported the proportion of regular orders with frequency instruction errors found these to be less frequent after implementation of the chart, ranging from 2% to 5% in error from a baseline of 7.2%. In association with reducing the opportunity for administration of a medication at a frequency not intended by the prescriber, prescribers were prompted to enter the administration times, according to a standard administration time guide included on the NIMC. The data indicated that prescribers entered dosing administration times in 33% to 86% of cases with the new chart compared with only 18% at baseline.

The NIMC is improving the administration of 'as required' medications

Medication to be taken 'as required' must be prescribed in such a way that nurses can safely and effectively tailor medication administration to specific patient symptoms. The common classes of medication prescribed as required, or *pro re nata* (commonly abbreviated to PRN), are pain relievers, laxatives and medicines for nausea and vomiting.

From the evidence available, PRN frequency documentation remains an area for concern in many sites with between 13% and 19% of orders not having any frequency of administration indicated.

As extra guidance for safe and effective PRN dose administration, the NIMC prompts prescribers to enter the reason for PRN medicine. The proportion of orders with reason for use was higher in all jurisdictions (14% – 47%) compared with the pre-NIMC pilot (13%). Similarly, the proportion of orders with a maximum dose documented was the same or higher (24% – 40%) than the pre-NIMC pilot (24%) in six of eight sites who reported this data.

As more health professionals use the NIMC, it will continue to reduce the risk of medication errors

Anecdotally, the number of new health professionals presenting in wards and familiar with the NIMC is increasing. For example, all undergraduate medical students at the University of Queensland participate in a safe medication practice program in which they are familiarised with the NIMC [13]. New nursing staff also participate in a medication error awareness raising program [14]. Pharmacists are familiarised with the NIMC during their undergraduate education. This has some important implications both for new staff and for staff rotating between facilities. It will reduce the risk of error caused by inexperienced staff confronting unfamiliar and potentially difficult to read charts (Figure 4.5) in unfamiliar environments, while also often under significant work pressure.

In 2008 the Commission is undertaking the first national quality assurance of the NIMC since its implementation. Implementation has identified some issues which have not yet been resolved within the agreed guidelines for NIMC local management. Inevitably, there is a tension between the requirement for a degree of stability with a national chart and the need to respond to local pressure for customisation especially for elements of the workforce which have been used to the flexibility of a facility-level drug chart.

It is understood and acknowledged that a national chart may 'from time to time' compromise some functionality at a local level. However, any national standardisation is an acknowledgement that the 'public good' of patient safety is to prevail in such situations. The challenge for the Commission is to respond to possible concerns with the NIMC while maintaining stability for users and avoiding frequent altering of the national standard in the absence of pressing safety issues. This will be achieved through quality assurance, including a known timetable for national change considerations.

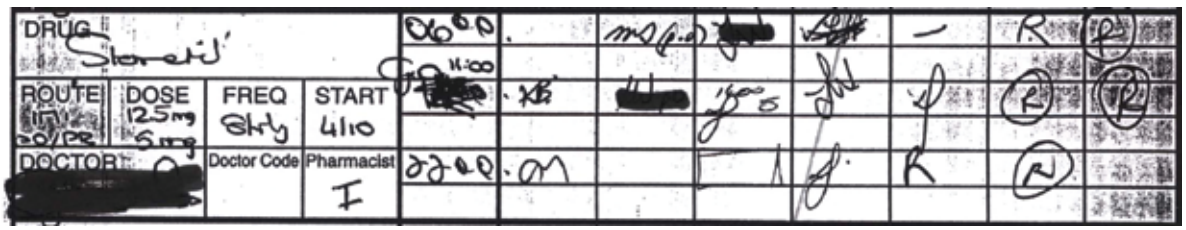
Reasons for medication problems in the community

Consumers report poor communication, lack of information and lack of co-ordination of care as common reasons for problems arising from medicine use. In surveys of Australian adults with chronic illness at least a quarter reported that the side effects of their medicines had never been explained to them, while just under a third said they had never had their medicines reviewed by their doctor [15]. Only four in ten received written instructions or a plan to manage their care at home [7].

One in five chronically ill adults reported they did not follow their doctors' advice. For the majority of these respondents it was because they did not agree with the advice. Half of the respondents found the cost prohibitive, while a similar number thought the advice was too difficult to follow [7].

Doctors, too, have reported that the most common reasons for error are associated with poor communication and co-ordination of care. They highlighted that poor communication between themselves and patients, poor communication with other health professionals and patients seeing other practitioners all contributed to error [17].

Figure 4.5: Idiomatic facility-level chart in use prior to NIMC implementation



Greater risk for people seeing multiple health professionals

- Less than one in twenty people with only one doctor reported receiving an incorrect medicine.

BUT

- Three in ten people who saw four or more doctors reported receiving the wrong medicine or dose in the last year [16].
- One in six reported that they got conflicting advice from different health care professionals [7].
- Only half reported that their regular doctor co-ordinated their care [7].

Greater risk for people moving in and out of hospital

- Nearly half of the chronically ill adults reported that upon leaving hospital they were given a new medicine.
- One quarter also reported that no one asked them about their medicines at the time of their admission [16].

Improving medicine use in the community

Efforts to improve use of medicines and reduce adverse events in the community have focused on improving prescribing and medicine use, enabling consumers to report adverse medicine events, the provision of medicine review services and practice guidelines for medication use in the community and in aged-care facilities.

Ten years ago Australia had none of these services in place, while today robust services are provided based on the rigorous research that underpinned their development [18]. Practice change is difficult and diffusion of innovation in health care notoriously slow [19]. To ensure the diffusion of innovation (in this instance, services to improve medicine use and reduce adverse events) requires uptake by between 15% and 50% of the population [19]. Importantly, the quality use of medicines services provided in Australia has now reached adequate levels of uptake amongst Australia's general practitioners, with half voluntarily participating in quality use of medicines activities such as clinical audits, case studies and academic detailing (educational visits undertaken at doctors' practices) delivered by the National Prescribing Service [20]. The level of engagement among health professionals at all levels provides a strong platform for implementation of strategies specifically focused on reducing adverse medication events and integrating them with the quality use of medicines initiatives.

Medication review services are improving medication use in the community

One significant quality use of medicines initiative, funded by the Commonwealth Government, is the medication review service for those at risk of medication related problems, both in the community and in residential aged-care. Medication review services have been shown to reduce adverse medication events [21-23].

One Australian study involving 1000 consumers at high risk of medication misadventure found over 90% of people who received the service had one or more medication related problem with, on average, each having three problems. Problems included the need for additional medicines or tests, inappropriate selection of medicines, adverse drug reactions and patient confusion about medicines. In 82% of the cases, these problems could be resolved or improved. A systematic review of 22 randomised controlled trials assessing medication review services confirms the effectiveness of the service in improving medication use and surrogate outcomes [22].

Since the initiation of the service over 160,000 home medication reviews have been funded in Australia, with 33,000 conducted in 2007, while over 31,000 collaborative reviews in the aged-care sector were conducted in 2007 [24]. Training and accreditation standards have been established and more than 1775 accredited pharmacists are trained to provide the service. This represents significant diffusion of innovation within the health system, as these services are novel and systems to support their implementation had to be developed. Targeted quality improvement activity will facilitate further improvements in delivery of the services. These services are also being integrated with other elements of the health system and used to facilitate

co-ordination of care when people transfer between health facilities, such as hospital and aged-care. These programs also demonstrate more appropriate medicine use in those receiving the service compared to those who did not [25].

Systems to alert us to problems with medicines are integral to improving medication safety. While Australia has well developed systems for health professionals to report suspected adverse drug reactions, consumer participation in these systems has been consistently advocated [26]. In 2003, the former Australian Council for Safety and Quality in Health Care funded an 18 month national project implementing an adverse medicine event telephone line that provides consumers with advice about the suspected adverse event and collects data on the events which, where appropriate, contribute to national pharmacovigilance. In its first year the service received over 2000 calls, with one in five calls resulting in an adverse reaction report to the Australian Adverse Drug Reactions Advisory Committee. The service is proving successful in contributing to identifying previously unrecognised reactions, as evidenced by consumer reports of adverse events associated with hypnotics [27].

Continuing to improve the safety and quality of medication use in Australia

The demonstrated successes in developing and implementing novel solutions for medication safety in Australia over the last ten years highlight our capacity to reduce the harms that occur with medicines. However, because of the complexity of medicines, their use throughout all aspects of the health care system, the many people involved in their manufacture, distribution, supply and use and evolving knowledge about what works best, there is still much work to be undertaken.

In 2002, the former Australian Council for Safety and Quality in Health Care, in its national report on medication safety, highlighted a number of systems solutions known to be effective in improving medication safety. These included individual patient medication supply systems; clinical decision support systems; adverse drug event alerts; systems that provide adequate checking, such as bar coding; as well as provision of clinical pharmacy services and discharge medication management services. While implementation of some of these systems is occurring at a jurisdictional level, there is still a requirement for national leadership to support widespread implementation of these initiatives and the development of systems to monitor implementation and inform policy development.

Examples of initiatives for further development are:

- Use of ward stock patient supply systems has been associated with administration error rates of 18% compared with individual patient supply systems error rates of 5% to 8% [5]. Currently, the extent of institutions with individual patient supply systems is unknown.
- Scanning medications at the time of dispensing has been shown to reduce errors [5]. It is not a mandatory requirement across the country, although the practice has been implemented in some states. Scanning has also been shown to reduce medication administration errors, but again, the extent of institutions with administration scanning systems is unknown.
- Discharge medication management services have also been shown to be effective [5]. However, the consistency of implementation across all jurisdictions and its integration with other services is unclear.

Additionally, there is also the need for national leadership to support the development of existing resources to further assist efforts to reduce harm from medicines. Details of some existing resources are given below.

Australia has a very successful adverse drug reactions reporting system which identifies previously unrecognised adverse reactions and provides information to all health professionals. The system was developed in the 1970s and relies on spontaneous reporting from health professionals as well as reports from the pharmaceutical industry. It supports global pharmacovigilance efforts and needs to be maintained. In addition, due to information technology, it is now possible to enhance the types of pharmacovigilance studies that can be undertaken in Australia [28].

Australia has two of the richest health information stores in the world: the Pharmaceutical Benefits Scheme data and the Medicare Benefits Scheme data. By linking de-identified data from these two sources with morbidity and mortality data, we would be able to identify problems with medications more quickly, identify previously unrecognised side effects, identify the risk of side effects in groups not included in the clinical trials and assess the appropriateness of medication use in practice.

Timely provision of this information tailored to the needs of all stakeholders would improve medication safety. For example, analyses using the pharmaceutical data set showed that non-steroidal anti-inflammatory drug use increased by 30% in Australia with the introduction of celecoxib [29]. Use increased by the same amount in people who were also dispensed medicines for diabetes and medicines for heart failure, groups in which there is a higher risk of adverse renal events on these medicines [30]. Earlier recognition of this pattern of medicine use may have prevented adverse events in these high risk groups. National leadership is required to support the development of this activity and integration of the outcomes of this work with other quality use of medicines activity.

Finally, as the example of the National Inpatient Medication Chart shows, standardisation of health care is one of the effective ways of reducing medication incidents. However, standardisation, by definition, requires the rigorous work of standards development, as well as agreement by all stakeholders and the integration of the standards into practice. One of the current opportunities for standardisation lies with the information technology systems being developed for health settings. These details are discussed below.

Computerised prescribing ordering and entry systems have been shown to reduce adverse medicine events [5]. However, consumers can be at risk of increased misadventure if systems developed to support improvements in one sector of the health system (e.g. general practice) cannot communicate with systems in another (e.g. pharmacy or hospital). Further, variable results in improvements in care will be seen if adverse drug event alert systems differ between jurisdictions or if presentation of information is inadequate. While the NIMC is an example of a standardised paper based chart, similarly standardised technology alerts and presentation of information in information systems will reduce the potential for errors.

Electronic prescribing systems, especially those systems offering advanced decision support functions, have been shown to reduce risk of medication errors and adverse drug events in hospital settings [31]. Linking prescribing with administration and dispensing information systems further decreases opportunities for error. Currently implementation of electronic medicines management systems in hospitals is low. More research is needed into implementation factors and guidelines developed to assist hospitals implement the technology safely [32].

Conclusion

Many countries are hampered in their efforts to promote safer patient care and improve use of medicines by the lack of a coordinated approach and national strategy. Australia has the advantage of well developed policies and strategic frameworks in place for supporting medicines and quality in health care. Key policies include the National Medicines Policy [33] and its Quality Use of Medicines Strategy [34] and the Commission's program to develop a coordinated national strategy for enhancing medication safety.

The National Medicines Policy advocates systems solutions, the use of data to inform program development and the fundamental need for consumer participation and collaborative, multi-disciplinary activity. The Commission supports these directions, as they provide a strong platform on which to improve medication safety. With coordinated action, improvements in medication safety are underway and are set to continue.

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5

Handover

How is patient care transferred safely?

When a patient seeks health care, information about their health often needs to be communicated from one health professional to another. This information could be in the form of a referral letter from a general practitioner to a specialist or information about an inpatient communicated among many hospital staff at shift changes and within shifts. This process is commonly known as 'clinical handover'. At any point where patient information is transferred, clinical handover occurs. Importantly, handover also marks the transfer of accountability and responsibility for patient care from one health professional to another. To ensure patient care is safe, clinical handover must be clear and effective for every patient, every time.

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Understanding clinical handover

Clinical handover is the transfer of information and of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis [1]. Handover occurs from one provider or team of providers to another; at points of patient transition across settings; between services or levels of care; and due to the need to organise clinical work into manageable shifts.

When patients seek treatment, they can potentially require transfers and be treated by a number of health professionals in multiple settings, for instance: primary care, specialised outpatient care, ambulance services, emergency care, the operating theatre, post anaesthesia care unit (or recovery), intensive care, hospital ward, procedural services (such as X-ray) and rehabilitation (both in hospital and in the community). In addition, they may also require care by allied health services. Health professionals involved in these transfers will have differing information needs and patients' needs will change as their health conditions, treatments and care alter over time.

Effective communication is critical to safe health care delivery. During handover, information about patients both historical and, most importantly, about likely future events is shared. This opportunity ensures that the staff taking over care receive accurate information about patients. Aside from provision of information, the handover also facilitates opportunities for social interaction, role modelling and education for less experienced staff, emotional support among colleagues and emotional support for patients and family members [2 4].

Handover also involves the transfer of *accountability* and *responsibility* for a patient or group of patients. The reason to recognise handover in these terms is that transfer of information is irrelevant unless it results in action that is appropriate to the patients' needs. Accountability includes the obligation to report and be answerable for the consequences. Responsibility includes the acknowledgment that a person has to act. When handover is thought of in these terms it helps select the information elements needed for a handover and the mode of handover: 'If I need to hand on responsibility, what information do I need to share and how can I be sure I have handed over responsibility?'

The Commission's work on clinical handover

The Commission is conducting a national initiative to improve clinical handover. The first phase of this initiative has involved engaging a number of public and private sector organisations to develop and pilot standardised, transferable handover solutions. Each project has the potential for national and international applicability.

There are 14 pilot projects, which are focused on high risk handover scenarios, communication training, guidelines for electronic handover tools and observation tools (to allow observation, monitoring and evaluation of handovers).

Over the coming year these projects will inform a national approach to improving handover.

Referrals are also handovers

'In health care, referral involves the handover of a patient from one health care provider to another with sufficient information to ensure that appropriate patient care can continue following that transfer of responsibility. Referral necessarily involves the acceptance by the referee of that transfer of responsibility. Referrals in health encompass a number of clinical communications:

- Hospital discharge referrals.
- Referrals from general practitioners to specialists.
- Diagnostic imaging and pathology test requests.
- Prescriptions.
- Referrals between medical professionals and allied and community health services.

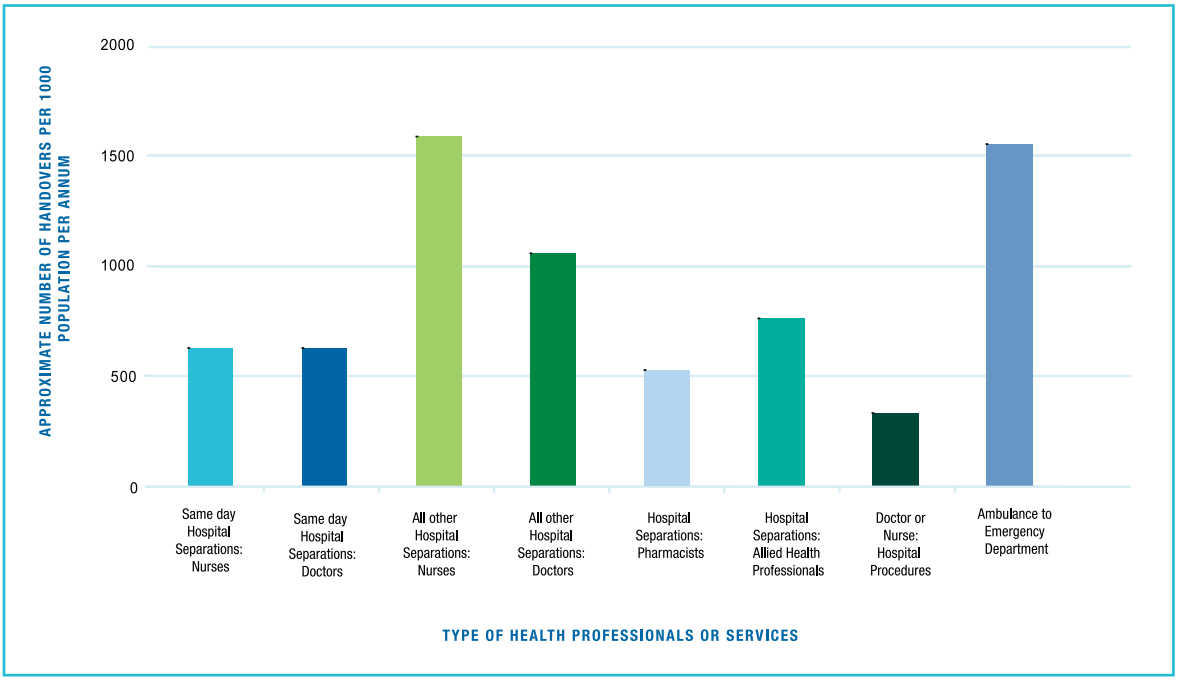
In excess of 300 million referrals are made per year as part of services funded under the Medicare and Pharmaceutical Benefits Schemes alone. Outside of these two schemes, referrals occur both within and between health care enterprises and in and out of the public health system and private health services.'

Source: DOHA e-Health Branch

How often does handover occur?

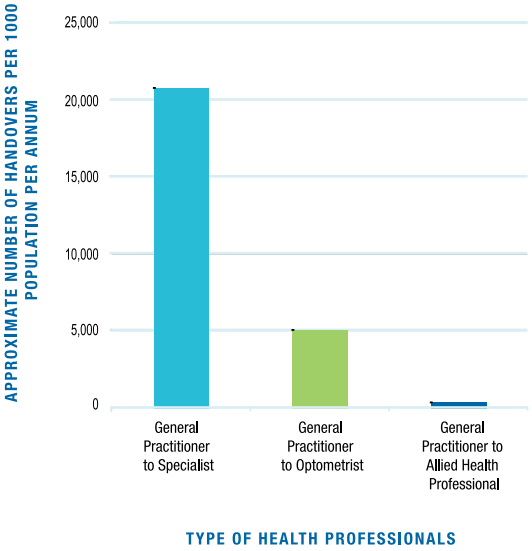
Patient care is complex. One element of this complexity is the number of contacts and transitions undertaken by patients [5]. Figure 5.1 shows that approximately 7,068,000 handovers occur annually in Australian hospitals.

Figure 5.1: Estimated numbers of handovers conducted in hospitals [6]



In addition to handovers in hospitals, Figure 5.2 indicates that approximately 26,200,000 handovers are carried out in community care settings. They involve general practitioners, medical specialists, allied health professionals and optometrists.

Figure 5.2: Estimated numbers of handovers conducted in the community [6]



Taking into account handovers that are conducted in hospitals and in the community, but excluding prescriptions and requests for diagnostic imaging and pathology, it is estimated that 28,167,900 handovers occur in Australia annually. Opportunities for misunderstandings can occur in every single one of these handovers. These opportunities for miscommunication can manifest as inaccurate data, delayed information or the use of poorly organised or misleading data, which can reduce continuity of care and increase the risk of adverse events and patient harm [7].

Methods of conducting handover

The conduct of handover varies between settings. Methods of conducting clinical handover include the use of recordings, spoken handover at the bedside, written handover and verbal whiteboard handover [8]. Some influences on the type of handover are:

- The combination of medical and nursing and other clinical and non-clinical staff involved in the handover
- Whether handover is synchronous (e.g. face to face

Handover in an Emergency Department

On Tuesday morning at 10am, 70 year old John Smith is shopping with his wife when he experiences severe chest pain. His wife calls an ambulance. The ambulance officers take a brief medical history from the patient.

When the ambulance arrives at the emergency department around 10:30am, the ambulance officers handover the brief medical history information to the triage nurse so she can make a decision about how quickly the patient needs to be treated. The ambulance officers take John around to the bed that has been allocated to him. The ambulance officers give a handover again to a nurse in the emergency department. The nurse begins monitoring John, as well as asking further questions about his history, specific to the presenting problem, and more general questions. The nurse then creates patient notes, which are stored in a folder in the central area where the whiteboards and computers are located. In these notes, the nurse documents the information given by John.

A young emergency department doctor then sees the patient. It is busy so they do not get the chance to review the nurse's notes beforehand. The doctor asks John about his history. The doctor then orders an electrocardiogram (ECG) and blood tests and asks the nurse to carry these out. Medications are also ordered, which the nurse administers to John. While the nurse is treating John, the doctor writes in the patient notes.

After the ECG is completed, the nurse brings the printed results to the doctor to examine. As the doctor is a junior doctor, they show the ECG to a senior doctor to ensure that the doctor's understanding of John's problem is correct. Even though the ECG is normal, the doctors decide that a cardiology registrar needs to see John. The cardiology registrar is busy, but will attend when able.

It is early afternoon and there is a nursing shift change. The morning nurses are to go to lunch and come back on later to relieve the afternoon nurses for their lunch. All the nurses who are not occupied in urgent care congregate around the whiteboards. The nurses treating the patients give a handover of clinical and psycho-social information to the nurses coming on. All the nurses then walk around to each bed in their section, with the morning nurses introducing the patients to the afternoon nurses.

Throughout the afternoon, John's emergency doctor and the afternoon shift nurse both continue to treat and monitor several patients, including new admissions. When the cardiology registrar arrives he finds the patient notes located in the central desk area, and reviews them while walking to John's bed. The cardiology registrar asks John questions about his history, checks the test results and makes clinical decisions. He then telephones the cardiology consultant to confirm his recommendation that when John is stable he can be discharged with a referral to see the cardiology consultant. The consultant agrees and the cardiology registrar then writes his findings and recommendations in the patient notes.

A short time later, the junior emergency doctor picks up the patient notes to check if the cardiology registrar has seen the patient. As the recommendations are written in the notes, the doctor can begin to make plans to help discharge John. The junior doctor discusses this with the senior emergency doctor and then writes in the notes. During the afternoon there have been two more brief nursing handovers: one brief handover occurs as the afternoon shift nurses take their lunch break, relieved by the morning shift nurses, and another brief handover takes place when the morning shift nurses prepare to go home. These handovers are brief because both groups are now aware of the patients in the department.

By 5pm, John is ready to be discharged. A discharge letter is written to be given to John's general practitioner and the cardiologist. He is given a prescription to be filled. During his six and half hour stay in the emergency department, there have been 14 separate handovers of 10 different types. If he were to have stayed another hour in the department, there would have been a shift change for doctors, involving another handover. Some patients stay in the emergency department for days [3]....

or by telephone) or asynchronous (e.g. letters, notes, taped recordings for playback by later arriving staff) or a combination of the two (e.g. notes followed by a verbal handover).

- The available resources of the facility (e.g. time, space or access to electronic tools).
- Types of patient conditions and patient acuity.

A recorded handover requires a health professional on the previous shift to audio-record the handover for those individuals working on the oncoming shift. A recorded process has been favoured by organisations that have sought to reduce overlap working times for nursing staff [7].

A bedside handover involves health professionals congregating around the bed area of the patient. One of the major benefits of a bedside approach is that there are greater opportunities for patient and family contribution. Junior clinicians may feel more at ease with the process because being able to see the patient can act as a visual prompt for information to be delivered.

A written approach involves the use of varied sources, including care plans, written report sheets, whiteboards and computer generated report sheets. One of the benefits of using a written approach is that a standardised minimum data set form can be developed, therefore providing a consistent source of information for oncoming health professionals [9]. Lack of space on a whiteboard however can preclude comprehensive details from being documented [10].

Whiteboards have been used in hospital settings to reduce the extent of face-to-face communication between health professionals. Whiteboards possess an inherent ambiguity because of the temporary, transient nature of the writing conveyed on them. Their use may be ill-defined with notes written on them ambiguous as to whether they are 'to dos' or 'have dones'. While the process needs to be appropriate to the nature of the work [11], a standardisation of approach as to what should be communicated and how is required.

Patient experiences of handover

Patient experiences and perceptions of care provide insight to areas for improvement in the health system. Patients in several countries have identified coordination of care as an area of concern, particularly when seeing multiple health professionals is the norm [12]. It is suggested that:

> **'ensuring that information flows with patients as they move across sites of care is also critical to integrating care' [12].**

Effective coordination of care involves timely and accurate communication (that is, handover) between a patient's healthcare providers. Poor handover leads to poor coordination of care, resulting in failures such as delays in care, duplication, lack of information flow, conflicting advice and wasted time [13]. Patients who see three or more physicians in a year (and whose care therefore involves more handovers) also report higher error rates [12]. These error rates could be reduced with more effective coordination and communication between providers [12 13].

In Australia, 74% of surveyed adults reported that their regular doctor was given information about a treatment plan after discharge from hospital. While this rate is higher than in some countries, it demonstrates that handover between hospital care and community care needs to be improved [12]. Providing a system that allows patients to have a regular primary care provider can improve handover between their various healthcare providers [12].

Poor handover is a significant patient safety risk

Seminal Australian work suggested that communication problems were considered responsible for 11% of preventable adverse outcomes. Significant rates of adverse events continue to occur: in a cohort study involving 979,834 admitted episodes to Victorian hospitals during 2003-04, 67,435 (6.88%) had at least one adverse event. Patients with adverse events stayed about 10 days longer and had over seven times the risk of in-hospital death than those patients without complications [14].

Poor communication continues to be identified as a leading cause of treatment delays and poor patient outcomes [15]. A recent Australian study of communication from the emergency department to an inpatient unit found that poor handover resulted in confusion such as repetition of assessment and delays in management [16].

> **'Clinical handover is a high risk scenario for patient safety with dangers of discontinuity of care, adverse events and legal claims of malpractice.' [17]**

Content omissions

Content omissions involve critical data that are not communicated during the handover process (e.g. failure to report an active medical problem or symptom, failure to report changes in medications and treatments or failure to report procedures or tests to be carried out [18]).

Often important information relating to patients is lacking. While health professionals giving the handover know the required information, they may not know which details have already been shared with the other health professionals involved in the handover. As mentioned by an emergency care nurse [19], 'I think that when you get to the [intensive care unit] it's very hard to know how much [the intensive care staff] know and if you are wasting their time by being repetitive, if they know the majority of the patient information and the history beforehand'. Similarly, junior doctors may feel unsure about the extent of the information to provide to senior colleagues about patient history and management.

Failure to report procedures or tests to be carried out is another common omission. If diagnostic tests are not conducted or they are delayed because of omission during handover, deterioration in a patient's condition can occur. There is also the possibility of repeating diagnostic procedures and tests unnecessarily, thereby placing undue stress on the patient and on health system resources.

Failure to report changes in medications ordered can include inadequate reference to new medications that are prescribed for patients, alterations in dosages for already prescribed medications and the ceasing of medications. Failure to report treatments includes lack of information about new therapeutic regimens that are introduced, changes in times when such regimens are to be administered and cancellation or postponement of such treatments [20].

Incomplete or unclear communication

Incomplete or unclear communication relates to a failure of health professionals providing the handover to convey their reasoned judgements to the oncoming person. Such events can result in an oncoming health professional questioning why a particular decision was made. This questioning is more likely when there are illegible or ambiguous notes or a lack of face-to-face communication, as during verbal handovers oncoming staff can question the reasoning behind the decision-making.

What are the potential barriers to the delivery of effective clinical handover?

As an emergency nurse commented [21]: 'no matter where you work, handover is always a problem'. There are many possible barriers to the delivery of effective clinical handover. These barriers include:

- Lack of a shared understanding or practice
- Lack of interdisciplinary handover and care
- Busyness
- Hierarchical hospital culture
- Interruptions and distractions
- Minimal patient and family involvement
- Lack of training and research.

Lack of a shared understanding or practice

Lack of shared understanding of handover extends to what health professionals consider to be handover. It is important for health professionals to realise that whenever information, responsibility and accountability regarding a patient is transferred, then that is an episode of handover. There is also a lack of shared understanding of how handover should be delivered and what should be included in each type of handover.

The lack of shared practice in using either written or verbal communication (or both) can be problematic as information can be missed, repeated, or misunderstood by health professionals who are familiar with different handover practices. In a hospital, for example, nurses

write in patient notes and also handover verbally to other nurses at the end of the shift. There is often no agreement as to what information should be included in which handover, resulting in both repetition and gaps. The purpose of verbal handover should be to provide information about the changing condition of the patient. For example, a task-specific handover may be more beneficial than giving a minimum data set, such as allergies and past medical history, which can be easily found in the patient notes. As a nurse commented [21]: 'Handover is a chance to review and plan'.

A recent Australian study found that in verbal nursing handover, 84.6% of the information handed over was also found in documentation, such as patient notes, while 9.5% of information given was not relevant to ongoing patient care [22]. Only 5.9% of information conveyed in verbal handover was related to ongoing care or ward management and could not be found in existing documentation. This lack of shared understanding about what information should be shared and when, can also significantly increase the length of handover.

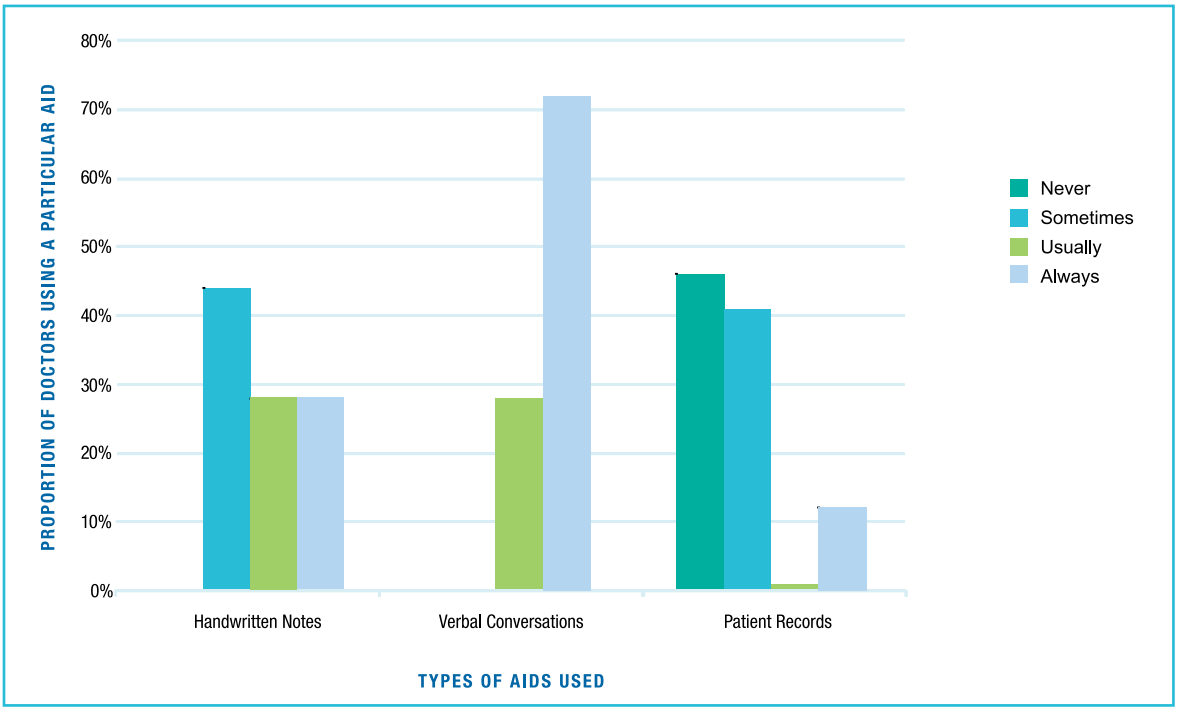
> **'the handover of a small number of highly relevant items may be more effective than the handover of a larger number of less relevant items' [16]**

The performance of doctors on simulated handover cycles showed only 33% of information was retained after the first handover cycle and only 2.5% of information was retained after five handover cycles [23]. The use of pre-prepared data sheets resulted in full maintenance of data.

Figure 5.3 shows the type of information used by senior and junior medical staff (N=77) in a public teaching hospital in New South Wales [2]. While all doctors utilised verbal conversation handover, common written records were not widely used. 87% of doctors accessed patient records rarely or never and 56% of doctors used their own handwritten notes.

The results of Figure 5.3 can be compared with data obtained from secondary analysis of 924 hours of participant observations of 240 handovers of nurses working in 13 different hospital settings (Figure 5.4) [18 24]. The majority (97%) of nurses used handwritten notes during handover. Some nurses who used pre-printed notes also used handwritten notes to supplement the information they provided. Patient records were rarely employed in practice; only 17% (n=41/240) of handovers involved the use of this form of documentation. The handovers that involved the access of patient records all occurred in intensive care settings where patients had multiple health problems and haemodynamic instability. Interestingly, nurses were often observed to make notes on paper towels. Nurses regarded their notes on paper

Figure 5.3: Use of aids by doctors during handover

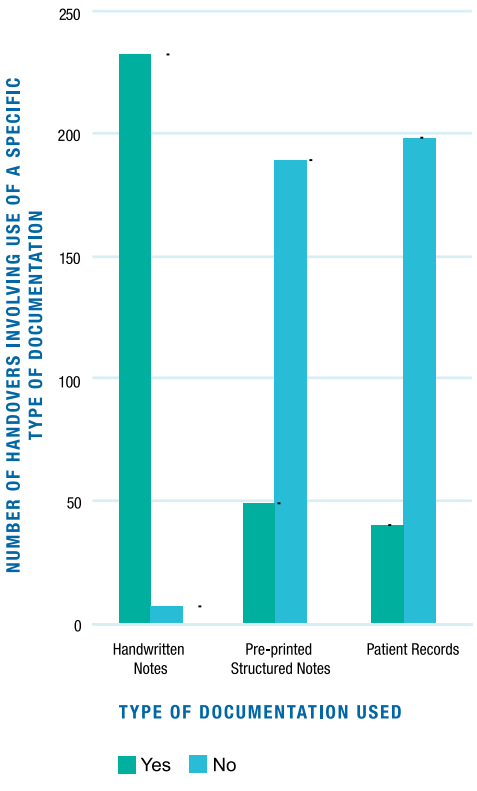


towels as temporary sources of information compared to data obtained from observation charts or progress notes, which were deemed to be permanent, legal sources of written information. In contrast to this, the observation study conducted by the Commission found that nurses almost always used patient notes during shift change whiteboard handover [21]. This lack of shared practice can occur between hospitals, between wards, and even between staff.

Lack of interdisciplinary handover and care

Lack of interdisciplinary handover can cause unnecessary repetitions in communication. For example, a doctor who reviews a patient without consulting the nursing notes may ask questions of the patient that could easily be found in the notes. Lack of interdisciplinary involvement in change-of-shift handovers may also result in one health professional not being made aware of an updated treatment plan that has been made by another health professional. Inter-disciplinary and multi-disciplinary models of patient care can result in improved care [25-28], yet these models are not highly utilised in Australia. It is hard to develop effective models of interdisciplinary care without high levels of commitment from medical staff [29].

Figure 5.4: Use of documentation by nurses delivering handover



The discharge handover is an important example of a situation that requires interdisciplinary communication. Medication regimens are constantly modified in hospital depending on a patient's changing health conditions. Upon discharge from hospital, the medication regimen may be very different to the one that the patient had when they came to hospital. It is important that modifications to medications are conveyed to various individuals to ensure the patient's smooth transition from hospital to home. Hospital doctors need to communicate effectively with hospital pharmacists to make sure the correct medication instructions are reiterated to the patient, including the type of preparation, dose, time of administration and route of administration.

In the discharge letter written for the GP, details of any changes to the medication regimen must be clearly stated. The rationale for any medication changes should also be explicitly mentioned. Occasionally, hospital doctors may also contact general practitioners by telephone to follow up on any complexities.

Some patients may also require home medication reviews to be completed by community pharmacists or assistance with medication administration by district nurses. To ensure effective involvement of community support, it is important that the discharge handover from hospital includes health professionals who deliver these services.

Patients and family members also need to be involved at the discharge handover to be told about any changes to the patient's medication regimen and to be educated about these changes and how they impact on day-to-day care at home. Breakdown in any of the handover communication processes that occur at hospital discharge may lead to an increased risk of hospital readmission, lack of patient adherence to their medications and poor management of the patient's medical condition [30 31].

Busyness

Handover is a central part of the work of providing good health care to patients and should be viewed as such by those delivering and receiving care. Despite this, time is often listed as a reason for poor handover, showing that handover is not prioritised appropriately. The tyranny of 'busyness', a common trait shown by health professionals, especially nurses, involves a compulsion to perform physical tasks around a patient's bedside area [32]. In practice environments, such as surgical settings, critical care, or emergency care, which are characterised by ill patients requiring

meticulous observations and complex treatment, the tyranny of 'busyness' manifests itself frequently. Thus, during handover interactions, rather than acknowledge that the previous health professional had a busy shift, or had performed well under difficult circumstances, the oncoming health professional may focus on the deficiencies of performed tasks and on tasks yet-to-be completed [10 24 32]. Thus, 'busyness' can result in both brief handover and defensive handover practice where a care giver may focus on their work – their busy achievements – rather than the information currently necessary for handover of patient care.

Hierarchical hospital culture

Handover can be affected by hierarchy and power issues (which also contribute to defensive handover). As the handover is often perceived as an educational training forum by medical consultants for junior doctors, it has the potential to be regarded as a form of examination for medical colleagues [20]. This limits communication and free discussion of important patient issues, for example, 'I'd better not ask about X because I might be supposed to know the answer and then I'd look silly'. While handovers might be difficult to understand for some health professionals, particularly junior clinicians, agency nurses, or locum doctors, their ability to question and direct discussions is governed by the social position and hierarchical rank of those present. It is hard for staff to speak to others about clinical concerns [33]. For patients to be safe, it must be safe for providers to speak up. Language techniques can assist with assertiveness [29 34-36].

Interruptions and distractions

Interruptions during the patient handover can occur from a variety of sources, including noises from equipment, patients and family members requesting information and intrusions from beepers and telephones. Interruptions can also arise when junior staff or students seek the advice of the person delivering the handover. A landmark study in an Australian emergency department demonstrated that nurses and doctors spent 80% of their working time communicating, and 10% of these communications were carried out while health professionals were involved in two or more overlapping conversations [37]. A third of communication events were also classified as interruptions. Lowering the rate of interruptions would avoid the disruption of memory and the generation of errors [38]. Strategies to lower the interruption rate include education and increased use of email, voicemail and whiteboards [37]. However, if new technological solutions are developed for handover, these need to be well-researched as sometimes 'communication is better than computation' [39].

Transfer to critical care can be an extremely busy period as attempts are made to stabilise patients. During this time, health professionals in the unit receiving the transferred patients tend to focus on patient safety concerns as they adjust monitoring equipment, ventilator settings and intravenous infusion devices [19]. Under such circumstances, the length of handover is likely to be increased and the attention span of those attending and delivering handover is reduced, making it a high risk handover situation.

Improving handover for chronic disease patients in East Arnhem Land

The Gove District Hospital Clinical Handover Project aimed to achieve the best possible continuity of care for patients with chronic diseases by:

- Identifying chronic disease clients on hospital admission.
- Developing a simple process for the chronic disease care plan to move between acute and remote health services.
- Developing an effective system for notifying chronic diseases nurses when their clients are admitted to hospital.
- Increasing the number of rural prescriptions discharged with the patient to the community.
- Improving the timeliness of delivery of discharge medications to remote communities.

The successful adoption of these changes has reduced the risk of a failure of handover for chronic disease patients in East Arnhem land.

Level of patient and family involvement

Handovers that include patients can provide opportunities for them to be involved in care decisions, as health professionals talk about assessments, goals of care, treatment plans and outcomes. Despite these possibilities, many Australian handovers do not include patient or family contributions. Nurses have suggested that patients and their relatives are sources of distraction, interrupting the conduct of the handover [40] [20].

Lack of training and research

Continuing research and training into clinical handover is essential. While there has been a recent increase in interest in health communication research and training [38], specific handover research and training has been somewhat left behind. Research and training also tend to focus on the term 'communication', which is both broad and vague. Communication training for medical students has been instituted in all medical schools and colleges in recent years. However, this training varies widely in content, structure and amount. Communication training also tends to focus on 'communication skills' between doctors and patients rather than on inter-professional communication [39] [40]. Importantly, there is no standardised training for clinical handover and most handover communication is learnt on-the-job in the junior years in hospital training. A nurse pointed out: 'you can learn bad habits early on. We're not taught handover' [21]. He also noted that improving handover is 'about breaking habits'.

Improving clinical handover

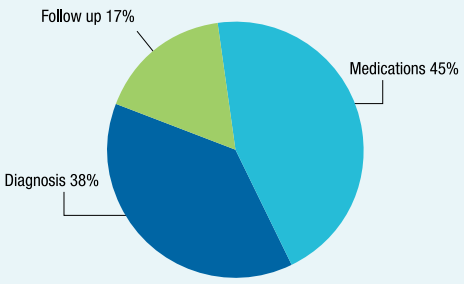
The Commission is committed to supporting health professionals who are working to improve clinical handover. Recently the e-Health Research Group produced an extensive literature review for the Commission [17]. The review demonstrates a burgeoning interest in clinical handover, particularly in Australia, and identifies effectiveness and evidence gaps.

Developing and implementing more consistent and reliable approaches to clinical handover is a key strategy in reducing communication errors. The Commission's clinical handover program therefore aims to identify, develop and improve clinical handover communication.

Revolving Doors – Effective communication in the handover of mental health patients to community health practitioners

St John of God Health Services Ltd (NSW Services) Clinical Handover project addresses the needs of patients with mental health illness as they transit care from the private hospital setting to their community practitioner(s). This innovative project is creating a three-way communication protocol where hospital practitioners, community practitioners and patients all contribute. A recent survey of general practitioners, conducted to inform the development of the three-way protocol, highlighted the importance that community practitioners place on diagnosis, medications, follow-up arrangements and the patient's risk of self-harm.

St John of God Health Services, Clinical Handover Project, GP Survey Results, May 2008, Question 1, The three most important items of information required to manage patients on discharge, n=35



The Commission has engaged public and private sector organisations to develop clinical handover initiatives. The breadth of the projects recognises that not one single solution is suitable for all situations, however tools can be developed that are transferable, sustainable and able to be generalised in particular areas of health care. The Commission's clinical handover projects are described in Figure 5.5 overleaf.

Figure 5.5: National Clinical Handover Initiative Projects

Lead Agency	Title	Aim
North East Valley Division of General Practice	Transfer to Hospital Envelope	To embed a tool, the 'Transfer to Hospital Envelope' into everyday policy and practice for aged care home staff and hospital staff to facilitate safe clinical handover.
West Australian Country Health Service	Identification and Development of Standard Clinical Handover Initiatives	To research and develop clinical handover arrangements, written and verbal, to ensure optimal transfer of patients from country health services where emergency or high dependency care is required.
South Australian Department of Health Clinical Systems Unit	Communication training & team training to support handover using TeamSTEPPS™	To trial the TeamSTEPPS™ Teamwork Training System in Emergency Departments, Medical and Surgical units in several South Australian Hospitals.
Griffith University Research Centre for Clinical Practice Innovation	Bedside Handover and Whiteboard Communication	To analyse the process of bedside nursing handover as a strategy to improve the type and accuracy of information communication during the nursing shift to shift handover.
Centre for Health Innovation and Solutions, University of Queensland	Development of e-learning strategy for safe clinical handover	To take the outputs from two mature reference projects and develop an educational package suitable for supporting the rollout of clinical handover solutions.
Tasmania: Department of Health and Human Services	Nursing and Medical Handover in General Surgery, Emergency Medicine and General Medicine at the Royal Hobart Hospital	To develop standardised clinical handover protocols for nursing and medical staff and associated training programs for the implementation of the handover protocols.
Humanities and Social Sciences, University of Technology, Sydney	Tools for ongoing observation, monitoring and evaluation of handover in order to ensure handover practices are resilient in the workplace	To engage clinicians in the design of local solutions that suit local contexts for handover.
Albury-Wodonga Private Hospital (Ramsay Healthcare)	The 'PACT' (Patient Assessment; Assertive Communication; Continuum of Care; Teamwork with Trust) Program: communication training and team training to support handover	To develop, implement and evaluate a multimodal education package to focus on effective and efficient communication at clinical handover (based on the SBAR tool – Situation, Background, Assessment, Response).
Mater Health Services Brisbane Limited	SHAREing Obstetric Care: Clinical Handover between VMOs and Midwives	To develop a tool for the specific handover of care related to maternity services.
St John of God Health Services	Effective communication in the handover of private mental health patients to community health practitioners	To increase patient adherence with treatment plans and to increase the level of practitioner satisfaction with the handover process so they can appropriately manage patients.
Deakin University	Inter-professional communication and team climate in complex clinical handover situations	To identify the risk of errors in the post operative recovery process caused by miscommunication.
Hunter New England Health	ISBAR revisited: Identifying and Solving BARriers to Effective Handover in Interhospital Transfer	To test the impact on patient care that results from identifying and solving barriers to effective communication around inter-hospital transfer.
GPpartners	Improving Residential Aged Care Facilities (RACF) to Hospitals Clinical Handovers	To reduce the communication gaps in the continuity of care delivery by developing and testing a common minimum data set for the RACF-Hospital & Hospital-RACF Clinical Handovers.
South Australian Department of Health in collaboration with the University of Tasmania	SafeTECH – Safe tools for electronic clinical handover	To develop electronic handover tool guidelines for the Open Architecture Clinical Information System (OACIS) that will also have utility across other information management systems.

Better clinical handover will improve patient safety

Effective clinical handover is clearly associated with safer patient care. The transfer of information, responsibility and accountability ensures that care is given to patients when and where it is needed. Effective and relevant clinical handover ensures that there are no omissions of important patient information. Good handover is clear, concise and timely. Improving the efficient and safe delivery of handover is essential to ensuring patient safety.

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6

Healthcare Associated Infections

How can we prevent healthcare associated infections?

Each year, healthcare associated infections occur in a very large number of patients. Some of these infections result in life-long disabilities or even in death. In addition to the significant patient harm caused by healthcare associated infections, such infections have significant resource costs, as they prolong hospital stays and create more work for healthcare staff.

At least half of healthcare associated infections are preventable and the ability of a healthcare facility to significantly reduce the rate of these adverse events has now been repeatedly demonstrated, both in Australia and overseas. Many efforts are underway across Australia to reduce the harm caused. National and local surveillance systems are part of this effort and their further development will be essential in continuing to reduce patient harm due to healthcare associated infections.

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Healthcare associated infections in Australia

In Australian healthcare facilities, large numbers of patients are treated in close proximity to each other. Here they often undergo invasive procedures, have medical devices fitted and receive broad-spectrum antibiotics or immunosuppressive therapies. These conditions provide ideal opportunities for the adaptation and spread of pathogenic micro-organisms.

Healthcare associated infections are infections transmitted to patients (and occasionally to healthcare workers) as a result of healthcare interventions in healthcare facilities (mainly hospitals, but also primary care and community services)[1]. In all countries, including Australia, such infections are one of the main sources of potentially preventable patient harm. They occur frequently [1].

In addition to the many deaths these infections cause, large numbers of people also suffer distress and discomfort and, in some cases, prolonged or permanent disability. These infections also often adversely affect the treatment of their original medical condition. They also delay the admission of other patients due to increased length of stay required by patients with these infections. **It is estimated that the 200,000 cases of healthcare associated infection in Australia each year use two million bed days** [1].

Healthcare associated infections also increase the cost of care as patients with these infections require: more medications; stronger and more expensive medications (with the added risk of complications); laboratory tests and other tools to diagnose the infection; and more comprehensive quarantine/isolation procedures.

There is no single solution to the problems posed by healthcare associated infections.

> **'Given the complexity of improvement and change in patient care, it is not realistic to expect that one approach can solve all the problems in health care delivery'** [3]

In addition to this complexity, other challenges are emerging. Such challenges include the increasing development overseas of organisms with new and troublesome patterns of multi-resistance (often as a result of poor antibiotic usage).

Surveillance systems are crucial in preventing infections

Surveillance is 'the ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and to improve health' [4]. The main purpose of collecting reliable surveillance data is to improve quality within a service or facility. Collecting such data can provide the impetus for quality improvement and make it possible to evaluate the effectiveness of an intervention. Surveillance for quality improvement can measure outcomes or processes, such as hand hygiene, which are linked to outcomes.

The Commission's work on prevention of healthcare associated infections

The Commission is drawing on Australian and international experience of infection prevention and control strategies to ensure that the most effective strategies are implemented in a nationally coordinated way.

Specific projects include:

- Publication of a white paper on *Reducing Harm to Patients through Health Care Associated Infection: the Role of Surveillance* [1].
- Working with the National Health and Medical Research Council to update the National Infection Control Guidelines.
- Conducting a National Hand Hygiene Initiative, based on World Health Organization guidelines and including education and audit components.
- Building clinician capacity, through educating infection control practitioners and making the prevention of healthcare associated infection 'core business' for all health practitioners.
- Developing strategies for the implementation of antibiotic stewardship and standards for antibiotic use.

The scientific value of surveillance as part of a hospital infection control program was powerfully demonstrated in the Study of the Efficacy of Nosocomial Infection Control in the United States [5]. This study validated the efficacy of infection control surveillance programs and found that the hospitals with the lowest hospital acquired infection rates had strong surveillance and prevention programs. It concluded that to prevent healthcare associated infections, hospitals need to regularly analyse surveillance data to link measured rates with practices and prevention efforts. The conclusions from this study have been supported and replicated in numerous published studies from individual facilities in the United States and elsewhere.

Quality improvement programs in Australia and overseas, that have involved surveillance and then implementation of improved policies and procedures, have resulted in sustained falls in the incidence of healthcare associated blood stream infections. For example, over three years, the incidence of methicillin-resistant *Staphylococcus aureus* (MRSA) in the United Kingdom and of intravenous sepsis at the Canberra Hospital has fallen by 50% [6]. A key indicator of the success of hand hygiene compliance is the measurement of MRSA rates (see below).

Variation in surveillance systems

In 2008, the Commission extended an invitation to health professionals responsible for infection control and prevention to complete a survey on their healthcare associated infection surveillance activities [1]. The survey confirmed previous findings of substantial variation in surveillance activity and in the expertise of those conducting surveillance, even between similarly sized or located organisations. Most facilities performed some surveillance of bloodstream infection, surgical site infection and multi-resistant organisms and undertook process surveillance of healthcare worker immunisation and hand hygiene compliance. The survey also revealed some significant deficiencies in current practice, including a lack of surveillance programs for antibiotic use (further detail below). Despite the dangers of multi-resistant organisms, 13% of respondents reported no multi-resistant organism surveillance.

There is no systematic national approach to surveillance for healthcare associated infection, or for routine collection and analysis of national surveillance data. There is also not yet a national program for drawing together data on incidence and prevalence of multi-resistant organisms in hospital and community settings.

Despite widespread surveillance activity in most jurisdictions, many individual initiatives and the publication of a number of national reports, there remains considerable variation in resources allocated to surveillance and in the scope of surveillance undertaken in different parts of Australia (see Figures 6.1 to 6.3).

Figure 6.1: Australian surveillance programs and methods by state [7] as of July 2008

State	Definitions used	Risk adjustment of SSI rates	Mandatory participation	Public release of hospital-level data	Small hospital program	Private hospitals included
New South Wales	AICA	No	Yes	No	Yes	No
Queensland	AICA	Based on NNIS	No	No	Yes	No
South Australia	AICA	N/A	No	No	N/A	Yes
Tasmania	AICA	N/A	No	No	Yes	Yes
Victoria	NNIS	Based on NNIS	No but all hospitals participate	No	Yes	No
Western Australia	AICA	NNIS	Yes (selected indicators)	No	Included	Yes
ACT	AICA	No	No	No	N/A	No
NT	AICA	No	No but all hospitals participate	No	Yes	No

AICA = Australian Infection Control Association; MRSA = methicillin-resistant *Staphylococcus aureus*; NNIS= National Nosocomial Infections Surveillance System (now the National Healthcare Safety Network (United States)); SSI = surgical site infection.

Figure 6.2: Australian surveillance programs by state – outcome indicators [7] as of July 2008

State	SSIs	ICU – BSI	Non-ICU BSIs	MROs	Bloodborne virus exposure
New South Wales	Limited procedures	BSI related to central lines	*Staphylococcus aureus* BSIs	MRSA and MRAB acquisition in the ICU	Yes
Queensland	Limited procedures	Adult	Adult	MRSA, *C. difficile*, VRE, ESBL, MRAB	Yes
South Australia	No	Yes	By specialty	MRSA, VRE, VISA, ESBL, MRPA Infected/colonised *C. difficile*, CRGNB	No
Tasmania	No	*Staphylococcus aureus* BSIs	*Staphylococcus aureus* BSIs	MRSA, VRE *C. difficile*	No
Victoria	NNIS procedures	Adult, Paediatric, Neonatal	Small hospitals	No	Small hospitals
Western Australia	Joint arthroplasty	Adult, Paediatric	Haemotology Oncology Outpatients Haemodialysis	MRSA *C. difficile*	Yes
ACT	Joint procedures and targeted sentinel events	Yes	Yes	Yes	Yes
NT	LUSCS	No	No	Yes	Yes

BSI = bloodstream infection; ICU = intensive care unit; MRAB = multi-resistant *Acinetobacter baumannii*; MRSA = methicillin-resistant *Staphylococcus aureus*; MRO = multi-resistant organism; SSIs = surgical site infections; VISA = vancomycin-intermediate strains of Staphylococcus aureus; VRE = vancomycin-resistant enterococcus, LUSCS = Lower Uterine Segment Caesarean Section, CRGNB = Carbapenem resistant gram negative bacillus.

Figure 6.3: Australian surveillance programs by state – process indicators [7] as of July 2008

State	Surgical antibiotic prophylaxis	Antibiotic use	Staff influenza vaccination	Other staff immunisation	Hand hygiene	Intravenous care
New South Wales	No	No	Yes	Yes	No	No
Queensland	Yes	Yes	Yes	Yes	Yes	Yes
South Australia	No	Yes	No	No	No	No
Tasmania	No	Pilot	No	No	No	No
Victoria	Yes	Pilot	Yes	Small hospitals	Yes	Small hospitals
Western Australia	Yes	No	No	No	Yes	No
ACT	Yes	Yes	Yes	Yes	Yes	No
NT	No	No	Yes	No	No	No

Hand hygiene is essential in preventing infections

Up to 70% of hospital acquired infections could be prevented if infection control procedures were optimised [8]. The hands of healthcare workers are the single most important source of preventable hospital acquired infections [9]. Healthcare workers inadvertently transfer bacteria and viruses as they move from patient to patient.

The World Health Organization has developed a standardised conceptual approach to teaching and promoting a new hand hygiene culture in healthcare facilities [10]. The approach is based on the 'five moments for hand hygiene' [11]. It involves defining two zones: the patient zone (the patient and immediate surrounding e.g. linen, equipment, charts and furniture) and the healthcare zone (all other spaces, surfaces and other patients outside the patient zone). This method requires that healthcare workers attend to hand hygiene at five 'moments', which occur when entering or leaving the zones (as illustrated opposite [10]).

Western Australia's success in MRSA prevention

The potential for the emergence of methicillin-resistant *Staphylococcus aureus* (MRSA) to have a major impact on healthcare associated infection rates was recognised in Western Australia more than 25 years ago, with the inclusion of MRSA as a notifiable condition by legislation in 1982. This early and continued investment in specifically monitoring MRSA has been fundamental to ongoing prevention strategies in WA.

WA Health continues to promote and resource a comprehensive MRSA management prevention policy involving all healthcare facilities, infection control teams and microbiology laboratories in the state. The approach is similar to the successful 'search and destroy' policy used in northern Europe and involves:

- selective patient screening
- use of additional infection control precautions
- electronic alerts
- decolonisation (treating patients who carry MRSA).

The objectives of the program are early identification, containment and eradication of MRSA, with the primary focus being high-risk MRSA strains in WA acute care hospitals.

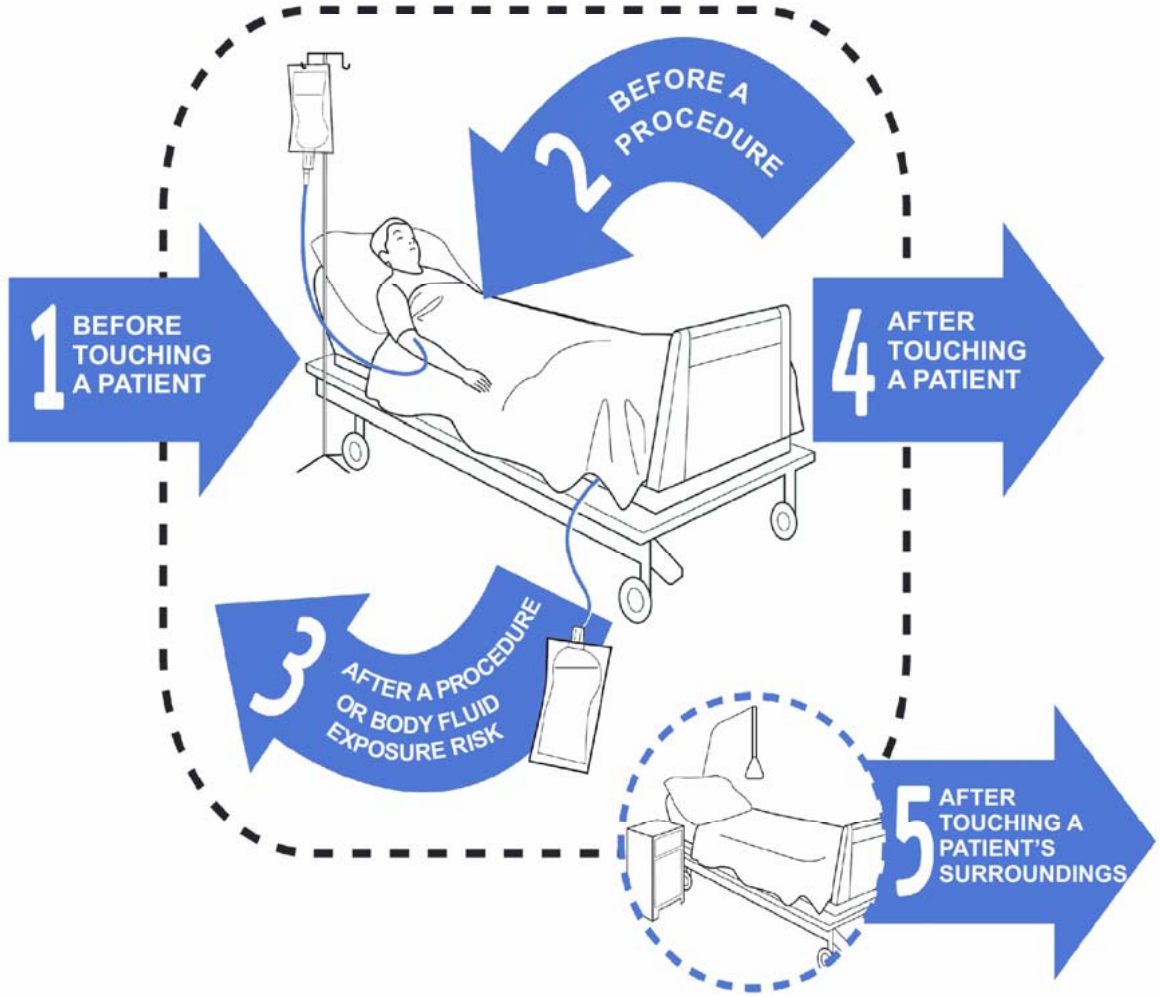
Executive leadership and resources for monitoring and reporting the impact of MRSA involve the Communicable Disease Control Directorate, the Office of Safety and Quality in Healthcare and the Chief Medical Officer working with frontline clinical and laboratory staff.

Although MRSA is increasing in prevalence in the WA community, the state's hospitals continue to report low levels of healthcare associated infections due to MRSA.

Most importantly, WA patients benefit from these low infection rates. For example, in the first two years of a state-wide surveillance program, **there were no central venous catheter blood stream infections** in WA intensive care units due to MRSA, only two MRSA blood stream infections related to haemodialysis catheters (4% of total haemodialysis blood stream infections) and only nine MRSA surgical site infections after hip and knee arthroplasty procedures. The reduced treatment and hospitalisation costs more than offset the ongoing investment in the MRSA reporting and monitoring program.

If other states attained rates of MRSA blood stream infection comparable with WA, it is estimated that between 120 and 158 lives would be saved each year in Australian hospitals, a figure comparable to the entire annual South Australian road toll [2].

5 Moments for HAND HYGIENE



1 BEFORE TOUCHING A PATIENT	WHEN: Clean your hands before touching a patient and their immediate surroundings WHY?: To protect the patient against acquiring harmful germs from the hands of the HCW.
2 BEFORE A PROCEDURE	WHEN: Clean your hands immediately before a procedure WHY?: To protect the patient from harmful germs (including their own) from entering their body during a procedure.
3 AFTER A PROCEDURE OR BODY FLUID EXPOSURE RISK	WHEN: Clean your hands immediately after a procedure or body fluid exposure risk WHY?: To protect the HCW and the healthcare surroundings from harmful patient germs
4 AFTER TOUCHING A PATIENT	WHEN: Clean your hands after touching a patient and their immediate surroundings WHY?: To protect the HCW and the health care surroundings from harmful patient germs
5 AFTER TOUCHING A PATIENT'S SURROUNDINGS	WHEN: Clean your hands after touching any objects in a patient's immediate surroundings when the patient has not ben touched WHY?: To protect the HCW and the health care surroundings from harmful patient germs

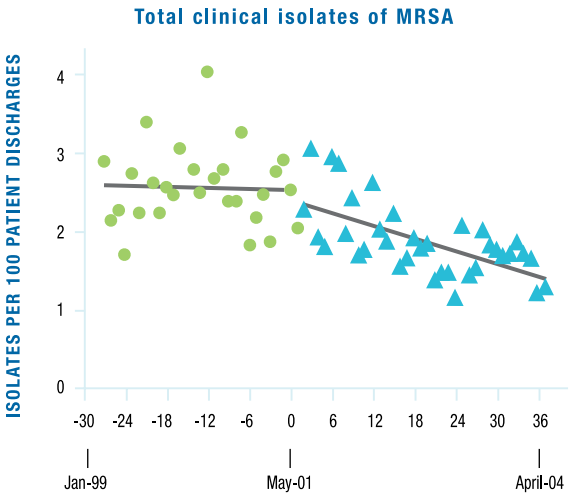
Hand Hygiene Australia

Adapted from World Health Organization

Hand hygiene programs can help to reduce healthcare associated infection

A hand hygiene program at Austin Health provides an example of a sustained reduction in MRSA infections [12]. Over 36 months, the rate of clinical MRSA infection and MRSA bacteraemia per 100 admissions fell by 50% (see Figure 6.4 below).

Figure 6.4: Effect of a hand hygiene program over time, as demonstrated by MRSA isolates and patient-episodes of bacteraemia [12]



Seven years later, hospital acquired MRSA infections at Austin Health are approximately 80% lower than they were in 2001. Based on the hand hygiene project at Austin Health, the Victorian Quality Council initiated a Hand Hygiene project in six pilot hospitals in 2004. The success of the pilot led to the project being rolled out during 2005-06 to all public hospitals in Victoria. It has now become a state-wide program funded by the Victorian Department of Human Services. Similar programs have been introduced in New South Wales, Queensland, South Australia and Western Australia. Over the next three years, the Commission's National Hand Hygiene Initiative will provide national sustainability strategies to embed and maintain the gains of the jurisdictional hand hygiene campaigns, thereby ensuring their long term benefit to patients.

Using good infection control guidelines reduces harm to patients

What the research is telling us

The purpose of clinical guidelines is to improve the quality of care for patients by assisting in the transfer of evidence to practice [13]. In infection control, clinical guidelines have been successful in achieving this purpose [14-16], but it is essential that guidelines be of good quality [17].

There is evidence that specific recommendations, sufficient supporting evidence, a clear structure and an attractive presentation contribute to the quality and use of guidelines [18]. Guidelines should be developed within a structured and coordinated programme by a credible central organisation. To promote their implementation, guidelines can be used as a template for local protocols, clinical pathways and inter-professional agreements [18].

However, it is not always understood that '…it is difficult to produce clinical practice guidelines that are completely evidence based. In fact, opinion often fills in gaps in the evidence base related to a chain of reasoning that underlies a clinical guideline' [19]. The practicalities of implementing research, patient and clinician preferences, and expert opinion are also considered in guideline development.

Implementation of guidelines is a difficult process and many guidelines have failed to change practice [20]. Guidelines do not 'implement themselves' and a coordinated implementation program should accompany the release of guidelines to ensure uptake by clinicians. Interventions that have been effective in changing practice were multi-faceted and involved active participation by many stakeholders [13 20 21] and process evaluation during attempts to make changes in practice [22]. Such evaluation is aided by the existence of indicators within the guidelines.

The Commission is working with the leading Australian authority on guideline development, the National Health and Medical Research Council, to update Australia's Infection Control Guidelines. Current international knowledge about effective guideline development and implementation will be the foundation of this work, which is designed to make the guidelines relevant to infection prevention and control across the broad spectrum of healthcare settings.

The revision of the guidelines will include developing a process by which the guidelines can be monitored and reviewed, so that if new research or pathogens emerge this information can be efficiently incorporated into the guidelines. It will also include stakeholder consultation throughout the guideline development process, as the first element of an implementation strategy aimed at promoting uptake of the guidelines. Later work will include the development of educational materials and indicators to accompany the guidelines and an evaluation plan to measure the effectiveness of the guidelines in preventing infections in healthcare facilities.

Antibiotic stewardship reduces harm to patients

There is a complex relationship between antibiotic usage and resistance. Antibiotic stewardship has been defined as 'an ongoing effort by a healthcare institution to optimise antimicrobial use among hospital patients in order to improve patient outcomes, ensure cost-effective therapy and reduce adverse sequelae of antibiotic use (including antibiotic resistance)'[23]. Stewardship programs aim to change antibiotic prescribing to reduce unnecessary use and promote the use of agents less likely to select resistant bacteria, in line with guidelines and demonstrated incidence of antibiotic resistance (as shown by antibiograms, an antibiogram being the result of laboratory testing on an isolated pathogen to find out what treatments the pathogen is resistant to). Successful programs have been shown to reduce institutional resistance rates as well as morbidity, mortality and cost [24]. To conduct antibiotic stewardship effectively it is necessary to have both multi-resistant organism surveillance and monitoring of antibiotic usage.

Diseases caused by multi-resistant organisms increase the morbidity and mortality associated with infections and contribute to increased costs of care due to prolonged hospital stay and the need for more expensive drugs. *S. aureus* is responsible for the largest proportion of healthcare associated bacterial infection with the methicillin resistant form (MRSA) now endemic in most Australian hospitals.

Clostridium difficile infections result after antibiotic use, especially broad spectrum agents (cephalosporins and fluoroquinolones) in hospitals. Recently strains with much higher virulence have spread widely in American and European hospitals, although luckily these have not yet been found in Australia. *C. difficile* usually causes diarrhoea and significantly lengthens hospital stay. However, the new virulent strain emerging in North America and Europe also causes epidemics and extensive mortality. Management of an outbreak of *C. difficile* requires early detection and specific precautions and Australia is not yet well prepared for such an outbreak. Surveillance of the occurrence of such multi-resistant organisms is crucial to their control. Of the 42% of respondents to the Commission's 2008 survey [1] who performed *C. difficile* surveillance, many only conducted surveillance in the event of an identified outbreak.

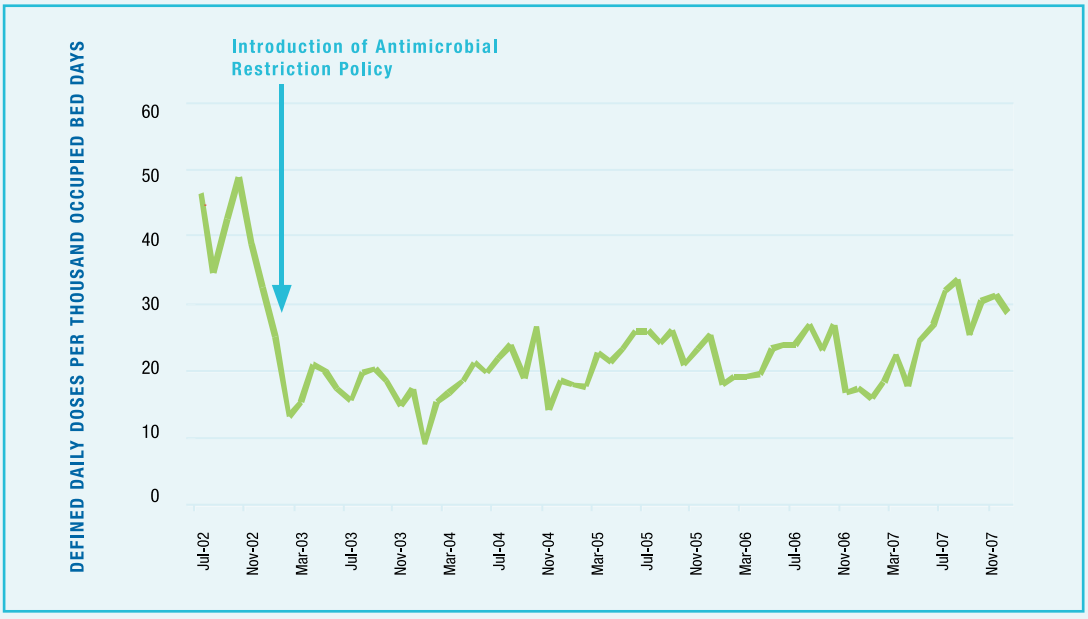
Use of ceftriaxone at a South Australian hospital [1]

High usage of modern powerful antibiotics in South Australian metropolitan hospitals was noted in 2002, through data collection and analysis by the South Australian Antimicrobial Usage Surveillance Program. One hospital implemented an antimicrobial restriction policy in January 2003, with a focus on community-acquired pneumonia treatment protocols, which had been identified through pharmacy audit as an area of inappropriate use of the antibiotic ceftriaxone.

Figure 6.5 shows that usage of ceftriaxone decreased significantly following the implementation of the new policy and that this level of use was sustained for about four years. This demonstrates the usefulness of surveillance of antimicrobial use. Surveillance allowed the detection of high usage of a specific group of agents; this stimulated investigation and the implementation of a targeted intervention which was followed by monitoring of the effect of the intervention.

However, ceftriaxone use appears to again be on the rise. A follow-up intervention is being considered.

Figure 6.5: The usage of ceftriaxone at a South Australian hospital



Monitoring and analysis of antimicrobial usage is also critical to understanding antibiotic resistance and to monitoring effects of containment strategies. Infection control professionals who responded to the Commission's 2008 survey [1] revealed that less than a third of facilities restricted access to certain broad spectrum antibiotics (30%) and just over 10% tracked intensive care antibiotic usage. Over half of the facilities (56%) did not track internal antibiotic usage, contribute to a national antibiotic usage data collection or restrict access to certain broad spectrum agents. This absence of antibiotic usage monitoring and active antibiotic stewardship is concerning, given the respondents' obvious substantial efforts in MRSA surveillance.

Currently, Australia has incomplete national antibiotic usage data and the data that are available are of limited usefulness because they are not linked with resistance surveillance data. However, the Commission is working towards developing strategies for the implementation of antibiotic stewardship and standards for antibiotic use.

Health professionals responsible for infection control and prevention describe the barriers they face in performing this work [1]

'I work over three facilities and therefore have four bosses who want things their way; it would be so much easier to be able to say we have standard practices which must be followed.'

'I am relieving in this position and training for some of the programs would be beneficial.'

'In a small rural setting, the RND1 (Registered Nurse Division One – the senior nurse on the shift) has multiple hats so Infection Control is a small but important component of the position.'

'There is a lack of dedicated resources for infection control surveillance funding and the infection control surveillance is usually conducted by our DON/DDON (Director of Nursing / Deputy Director of Nursing) in consultation with the RNs (registered nurses) on duty. There is insufficient dedicated computer software and hardware to carry out our work effectively.'

'There is a lack of reporting by nursing staff when the infection control nurse is not working in my facility.'

'There is a lack of time to analyse data due to our clinical loads. We have no access to an epidemiologist and resistance from clinical staff to collect the data.'

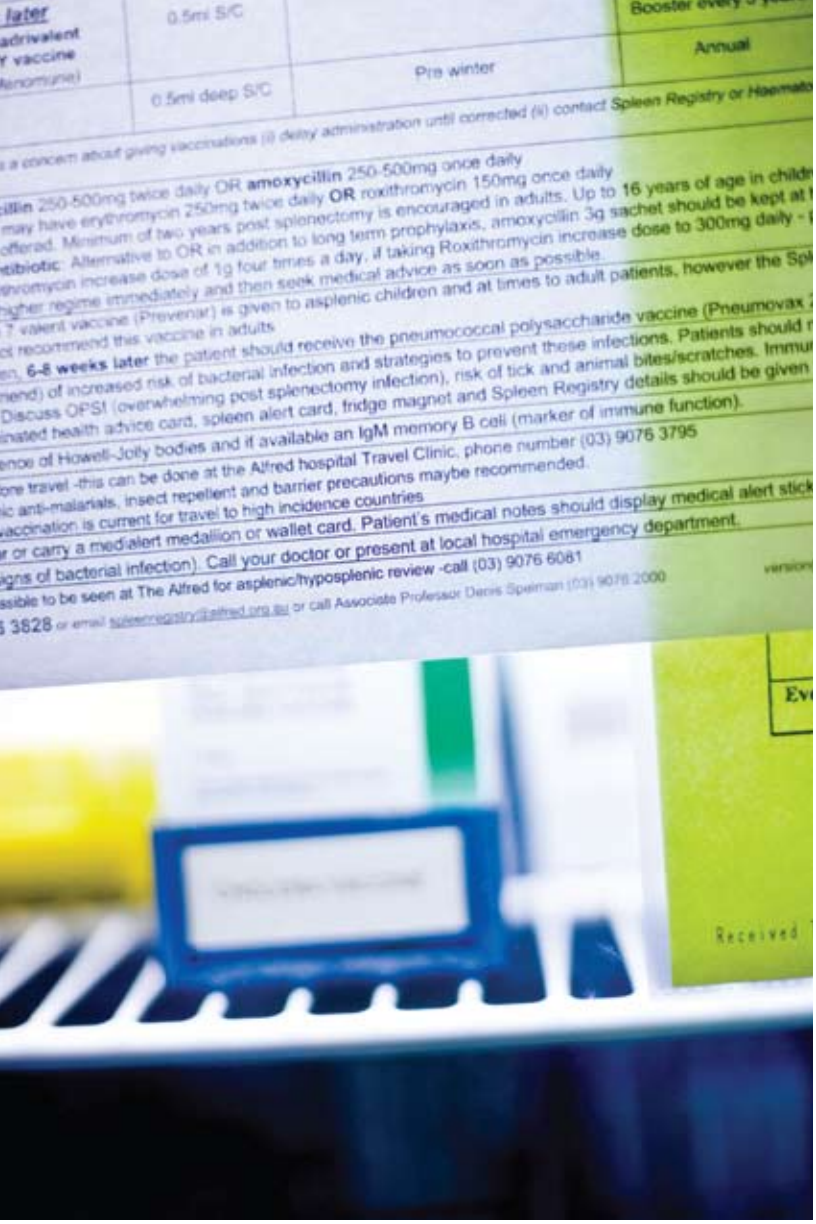
'We have competing time and deadlines. There are several agencies wanting some of the same type of data, but in a slightly different format, so in some cases you are generating the same type of data in four or five different ways.'

Staphylococcus aureus *Photo courtesy of Multimedia Services, Westmead Hospital.*

Building clinician capacity in infection control and prevention

While prevention of healthcare associated infection is the responsibility of all health professionals, the special clinical expertise and leadership of microbiologists, infectious diseases physicians and infection control practitioners is crucial. Surveys and workshops of infection control practitioners undertaken by the Commission have also shown that there is great variation in the skills held by individuals and the resources available to them and between larger metropolitan hospitals, rural centres, the private sector, aged care and residential health care settings.

The Commission's survey of health professionals responsible for infection control and prevention [1] highlighted that the range of hospital work in addition to surveillance performed by infection control staff was both considerable and variable. Nearly 80% of respondents reported performing 'other' infection control related audits at least once a year. The subject matter and scope of these audits varied, but included sharps and waste, cleaning, intravenous therapy and compliance with sterilisation processes.



The most frequently reported barriers to staff surveillance work were time constraints (41%), followed by information technology/computer issues (35%), spending time seeking out patients with infections (31%) and lack of institutional priority (31%) [1]. There was, in fact, an absence of any designated infection control staff in 7% of facilities. In other facilities, infection control duties were undertaken by enrolled nurses and even, in one instance, by a patient care assistant. One third of respondents undertook surveillance data collection in addition to other duties, for example, as the Director of Nursing, After Hours Bed Flow Manager or Quality Manager.

The Commission is working to address these barriers through building the capacity of infection control practitioners and healthcare workers. This will include engaging senior managers in understanding the role of the infection control practitioner in prevention and reduction of healthcare associated infections, establishing a mentoring program for infection control practitioners, and providing tools to assist all healthcare workers with assuming responsibility for infection prevention and control.

Surveillance is key to prevention of healthcare associated infection

Large numbers of healthcare association infections can be prevented by good decision-making and appropriate interventions by all who care for patients. These interventions and changes in clinical practice need to be guided by reliable information of the incidence and costs of infections and on the effectiveness of prevention strategies. Surveillance systems, guidelines and continuing education for healthcare workers all play an essential role in providing this information. The recently published paper on *Reducing Harm to Patients from Health Care Associated Infection: The Role of Surveillance* makes clear that surveillance is crucial for tracking improvement.

With updated guidelines, continued promotion of hand hygiene and more comprehensive surveillance systems in place, our success in preventing harm to patients due to healthcare associated infection will be increasingly assured.

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7

Open Disclosure

Will patients be told about things that go wrong in their health care?

While most patients have good outcomes, some are harmed in the course of their health care. When harm occurs, patients should receive an apology and a full explanation about the causes and the consequences of the harm they have suffered. Many patients do not receive such an explanation. However, Australia is making progress towards openly disclosing incidents to all patients. Healthcare staff already know that being open with patients is the right thing to do. Healthcare organisations are now learning that openness is integral to fostering and maintaining good relationships and to improving healthcare services.

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Understanding Open Disclosure

Open Disclosure is the open discussion of incidents that result in harm to a patient while receiving health care [1]. A formal Open Disclosure meeting includes:

- an expression of regret (or an apology) for the incident;
- a factual explanation of what happened;
- an explanation of the potential consequences of the incident; and
- a discussion of the steps being taken to manage the incident and to stop it happening again.

Efforts to make Open Disclosure the norm arose from the realisation that to improve the safety of health care we have to acknowledge that things do go wrong. This includes talking about incidents with staff and with patients who have been harmed.

Australia adopted an early and substantial national approach to Open Disclosure. The *National Open Disclosure Standard* was published in 2003 with the support of all Health Ministers [1]. The U.K. published Being Open – Communicating patient safety incidents with patients in 2005 [2], and Canada released the *Canadian Disclosure Guidelines* in March 2008 [3].

The *National Open Disclosure Standard* was a radical initiative and implementation of the standard has been a major endeavour requiring changes in policy, practice and culture. The *National Open Disclosure Standard* was piloted in 2006 and 2007 in all states and in the Australian Capital Territory. The commitment of each of the 40 participating sites led to Open Disclosure working parties being organised, hundreds of staff being trained in Open Disclosure and incidents being routinely followed by disclosure in accordance with the national standard.

An independent evaluation of the pilot of the *National Open Disclosure Standard* was commissioned in 2007. The evaluation was designed to answer several key questions:

- what is it about Open Disclosure that works?
- for whom who does it work?
- how does it work? and
- why does it work?

As part of the evaluation the researchers interviewed patients and health professionals who had participated in the Open Disclosure pilots across Australia. The interviews completed as part of the evaluation [4] have also been reported in the *Medical Journal of Australia* [5].

The interviews demonstrated that Open Disclosure has been met with relief and approval by health professionals. Staff who participated in Open Disclosure felt that they could now discuss matters that in the past were seen as too difficult.

Despite the emotional cost, significant time required, variable support from hospital lawyers and insurance representatives and uncertainty about the outcomes of the open disclosure process, interviewees were clear about the need to expand Open Disclosure across the Australian health system. As several interviewees said, 'there is no going back'.

Consumers regard Open Disclosure as an essential part of the health service response following every unexpected outcome. While consumers did not always express satisfaction about the quality of the disclosure process they had personally been involved in, they strongly supported the principle of Open Disclosure.

The Commission's work on Open Disclosure

In April 2008, Health Ministers agreed to work towards the full implementation of Open Disclosure in all healthcare facilities. The Commission is supporting jurisdictions and facilities to implement the standard by:

- Improving a shared understanding among professionals, managers, indemnity groups and patients.
- Developing guides to Open Disclosure for patients and for clinicians.
- Completing a study about the experience of 100 patients who have experienced Open Disclosure, to ensure that open disclosure develops to truly meet the needs of patients.

The Commission will also be monitoring the effectiveness of the implementation of the *National Open Disclosure Standard* and reporting this to Health Ministers at the end of 2009.

Some patients are told about things that go wrong in their health care

New South Wales and Queensland are now training selected public sector health professionals in Open Disclosure and are fully implementing Open Disclosure. Patients in public facilities in these states can expect to be told about any serious incidents which occur during their health care.

As more states, territories and public health services train and support staff to participate in Open Disclosure, increasing numbers of public patients will be told about things that go wrong during their health care. Parts of the private health sector are also taking steps to implement Open Disclosure. This will also increase the number of private patients being informed about healthcare incidents.

Queensland's investment in Open Disclosure

Queensland Health recognised the potential benefits of Open Disclosure and since 2006 has invested over $2 million in establishing its Open Disclosure Program and training staff.

Recommendations from the inquiries into medical practices of Dr Patel at the Bundaberg Hospital galvanised support for greater transparency in the Queensland Health System, for both patients and staff. Open Disclosure was seen as critical to re-building trust.

Staff involved in serious adverse events are usually frightened and vulnerable, and these emotions reduce their ability to focus on the needs of the affected patient or family. Open Disclosure in Queensland Health is based on a *Communications Consult Model*. At the heart of this model is a senior hospital clinician who is specially trained to support Open Disclosure by working with the affected clinician and patient/family.

More than 300 senior clinicians have been trained and are supported as part of a state-wide network in all health districts, available at short notice to provide this service. To maximise learning, training takes place in a specially designed Skills Development Centre which allows for full monitoring and review for the participants.

This highly specialised training utilises professional actors to allow the clinicians to explore the techniques needed to effectively support Open Disclosure, often in very emotionally charged and difficult circumstances. The training has been so well received by staff, that the University of Queensland, School of Medicine will include this in undergraduate medical training for 3rd and 4th year students from 2009.

The aim of Open Disclosure in Queensland is to provide the best care through recognising and effectively responding to grief after an adverse event, and to provide practical support to affected patients and families. Response from families is demonstrating the success of the initiative.

'When I got that phone call from the hospital…it was like a hand reaching out…they cared…it was marvellous'. 'It was never in the back of my mind to sue…all I wanted was for them to admit that there was something wrong…and that they were going to fix it'.

*Quote from a Queensland patient on the Open Disclosure process (Sharyn and Scotty, Townsville)

Other ways patients seek disclosure about events that happen in health care

One way in which patients may seek disclosure about incidents that happen in health care is through litigation. The Medical Indemnity National Data Collection provides a picture of litigation in the public sector. In 2005-06, there were 1943 new and 6922 active medical indemnity claims in Australia. Of the claims closed in 2005-06, 52% were discontinued, 42% were settled and 4% were the subject of a court decision.

Most patients who choose to litigate do so because they want an explanation and an apology. Many also want the problem corrected so it will not cause harm to other patients [6].

Making a complaint to an independent complaints authority is another way patients may seek disclosure about healthcare incidents. Increasing numbers of people use the services of independent health care complaints commissioners every year. As Figures 7.1 and 7.2 (overleaf) show, the predominance of complaints about 'communication' and 'treatment' suggests that many patients have not been adequately informed about their health care. Complaint resolution takes time and can be more difficult if patients have held their concerns for some time before seeking the involvement of the health care complaints commissioner.

Only some of the complaints that reach an independent health complaints office will represent incidents where Open Disclosure might have improved the patient experience. However, an examination of the resolutions achieved in South Australia suggests that many complainants are looking for elements of Open Disclosure, in particular for a full explanation and an apology. Honest disclosure is essential for renewal of trust between the consumer and the institution [14].

A view from the private sector: The Wesley Hospital Brisbane

The Wesley Hospital, owned and operated by The Uniting Church under UnitingCare, is one of Queensland's largest private hospitals. With more than 450 beds, the hospital employs over 1900 full-time, part-time and casual staff and offers clinical services across 35 areas of specialty from more than 900 accredited, referring specialists.

For more than two years, The Wesley Hospital has used Open Disclosure to discuss incidents and near misses with patients and their families. Director of Medical Services at The Wesley Hospital, Dr Luis Prado, had this to say about Open Disclosure:

'We made a conscious decision to go beyond the scope of the project and implement an Open Disclosure process as the framework for how we manage all clinical incidents. The determination was not the degree of severity of an incident but on whether there was harm caused to a patient.

Being involved in Open Disclosure helps you to reflect on what's happened to a patient who has suffered harm and to drive improvement. There is nothing more sobering than explaining to a patient and their family what happened and saying 'sorry'. Experiencing such challenging situations encourages you to strive for improvement in the safety and quality of care provided.

In a private hospital there are incidents where the 'hospital' has caused harm and in addition to speaking with the patient and their family we are obliged to explain what happened and apologise to the Visiting Medical Officer as well. In other words the same Open Disclosure process has to be undertaken at all times with the doctors who admit their patients to our facility.'

Figure 7.1: Issues complained about to Australian health care complaints bodies, 2006-07 [7-13]

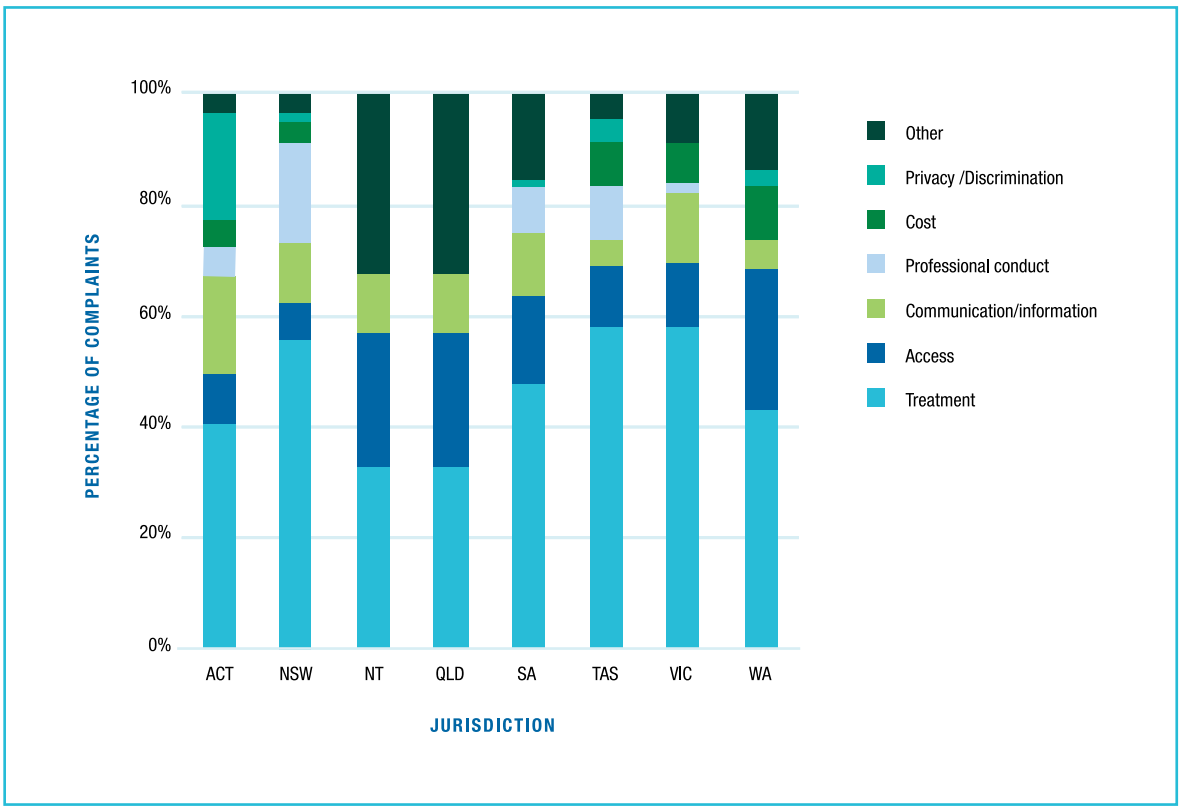
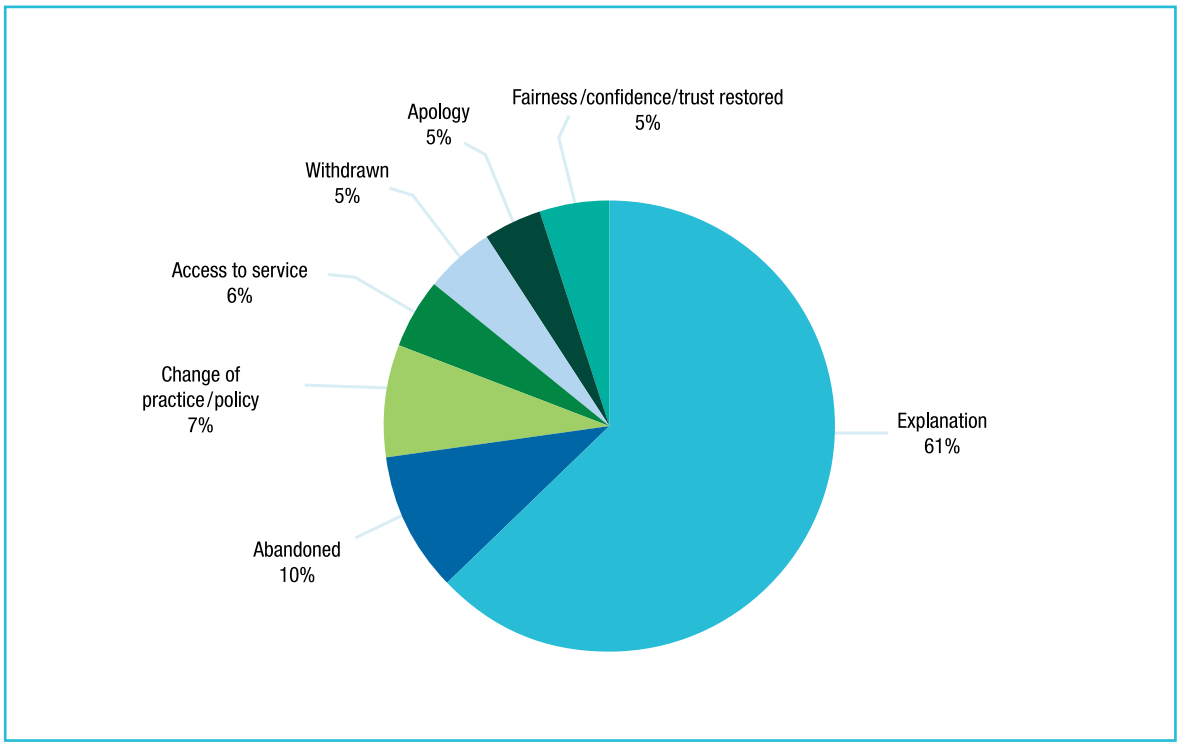


Figure 7.2: Finalised complaints - outcomes achieved, January - June 2006, South Australian Health and Community Services Complaints Commissioner [15]



Health professionals' views on telling patients about what went wrong

In conjunction with the 154 interviews conducted with staff and patients and reported in the evaluation of the National Open Disclosure Standard pilot, 480 health professionals completed an Open Disclosure survey. The survey participants included 45 people with a nursing background (58%), 32 with a medical background (37%) and 3 with other backgrounds (3%). The respondents had a high level of healthcare experience (average of 24 years). Many of them had a considerable administrative managerial load (average 66%), the majority worked in metropolitan hospitals and the highest percentage of survey responses (just over 46%) came from Queensland. Sixty-two of the 80 respondents (77%) had received Open Disclosure instruction. The majority (87%) had participated in Open Disclosure meetings.

The full survey with detailed methods is available at www.safetyandquality.gov.au. A selection of the survey results is presented in this chapter.

The survey responses indicate that Open Disclosure has defined advantages and challenges. The Open Disclosure pilot achieved a high level of support across most pilot sites in a brief period of time. Given the challenges and delays that policy implementation usually confronts this was a remarkable achievement.

As shown in the Figure 7.3 below, health professionals reported that Open Disclosure was conducted in a near exemplary manner.

Figure 7.3: Health professionals' views on Open Disclosure as a process

Survey Statement	% agreement
The patients have the opportunity to ask questions.	100%
The explanations are given sympathetically.	98%
The explanation given of what has happened to the patients is accurate.	97%
The harm that the patients have experienced is acknowledged by the health professional leading the session.	97%
The patients are told that steps are taken to avoid adverse incidents occurring again.	97%
An apology is made to the patient.	96%
The patients are told what steps are being taken to manage the event.	96%
The consequences of the event are clearly explained to the patients.	93%
An offer is made to share with the patients the findings of any further investigation into the cause of the specific incident.	89%
A support person for the patient is present (or readily available).	86%
If responsibility for the harm done to patients is highly evident, this responsibility is acknowledged by health professionals in attendance.	83%

Patient reactions to being told about things that went wrong

Very little is known about Australian patients' experiences of Open Disclosure. The team evaluating the Open Disclosure pilot were confronted by considerable barriers in gaining access to patients, however the few patients who were interviewed provided rich and, at times, surprising information. More Australian patient narratives of the experience of adverse events and of Open Disclosure will be collected in the Commission's '100 patient stories project'. Until these are available, health professional views about patient and family responses to Open Disclosure provide some indirect information and are detailed below.

When surveyed about patient and family perceptions, staff were in overwhelming agreement that patients and their families appreciate and benefit from Open Disclosure.

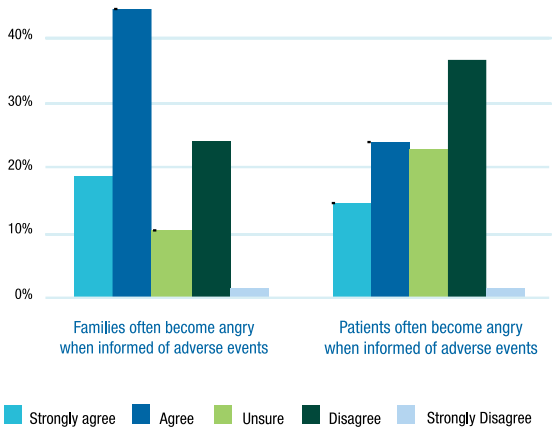
Figure 7.4: Health professionals' views about patient and family responses to Open Disclosure

Survey Statement	% agreement
Overall I think patients' well-being benefits from Open Disclosure.	96%
Patients appreciate receiving information through Open Disclosure.	92%
The information is given in a way that the patients seem to understand.	90%
Patients seem to appreciate being honestly informed through Open Disclosure.	88%
Patients' families appreciate receiving information through an Open Disclosure session.	82%

Health professionals surveyed were divided about whether 'Patients become angry when informed about adverse incidents': 39% agreed or strongly agreed, which is unsurprising as blame is a deeply rooted human response to harm, particularly in health care, where the patient expects to be helped [16]. However, 37% of respondents disagreed or strongly disagreed that patients become angry when informed about adverse incidents and the remaining 23% were unsure.

The response was different when health professionals were asked whether families of patients tend to become angry when incidents are disclosed to them: 63% of healthcare staff agreed or strongly agreed that families become angry when informed of adverse events. Interview data suggested a reason for this difference may be that as patients were present during care they were better able to appreciate the complexity of events leading up to the incident. Lacking this 'insider perspective', families reacted more negatively to the unexpected outcome.

Figure 7.5: Health professionals' views about whether families and patients become angry when informed of adverse events

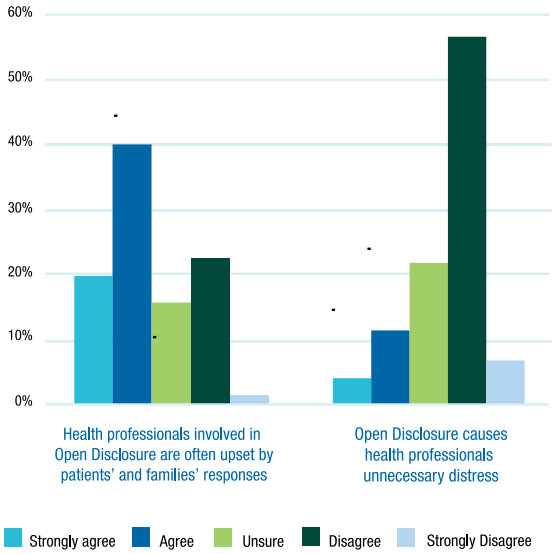


Significantly, the majority of respondents disagreed or strongly disagreed that 'Open Disclosure practices reduce patients' faith in the healthcare organisation' (77%), while 15% of respondents were unsure. It is also significant that 75% of respondents disagreed or strongly disagreed with the statement that 'Open Disclosure causes patients and their families unnecessary distress'. Given the finding that Open Disclosure is seen as producing variable degrees of anger in patients and families, disagreement with the statements that 'Open Disclosure practices reduce patients' faith in the healthcare organisation' and agreement with the statement that 'Open Disclosure does not cause unnecessary stress', it appears that respondents do not regard the intensity of emotions generated by Open Disclosure as futile and unnecessarily stressful. Essentially, the emotional intensity of Open Disclosure produces positive rather than negative outcomes overall.

Health professionals' reactions to telling patients about what went wrong

It is healthcare staff who are responsible for telling patients about the things that go wrong during their care, and Open Disclosure is a complex and demanding process [14]. This is confirmed by the finding that more than half (60%) of respondents agreed or strongly agreed with the statement that 'Health professionals involved in Open Disclosure are often upset by the Open Disclosure session'.

Figure 7.6: Health professionals' views on the degree of distress caused for them by Open Disclosure



These responses point to a degree of apprehension with regard to the emotional impact of Open Disclosure on staff. But when asked if 'Open Disclosure causes health professionals involved unnecessary distress', 63% disagreed. As mentioned above, this suggests that while Open Disclosure is seen as emotionally challenging, it is also seen to produce worthwhile outcomes. Respondents also strongly agreed (82%) with the statement that 'In my experience Open Disclosure leads to improvement in the quality of health care delivered'.

For the above reasons, health professionals surveyed expressed high, but not universal, degrees of satisfaction with and support for Open Disclosure:

Figure 7.7: Health professionals' views on their own Open Disclosure experiences

Survey Statement	Strongly agree/ agree	Unsure	Strongly disagree/ disagree
I feel satisfied with the outcome of the Open Disclosure sessions I have attended.	91%	6%	2%
I am in favour of Open Disclosure of all adverse events to patients.	80%	11%	8%

Staff satisfaction with Open Disclosure

'I had a registrar who did a procedure on a wrong patient. It's a minor one, because it was really very minor, all they did was look in the back of the person's throat, it was really inconsequential, but it came up on a trigger. Well, I thought inconsequential, but in fact, the registrar was devastated that he'd done something on the wrong person. I talked to some of my older colleagues about this and they all had a story. And what became obvious is that there were lots of these old surgeons, who had never resolved an issue ever in their own minds…so they never had the opportunity to go back to the patient and say sorry for what happened…whereas this particular registrar said, 'Well, you know, I went back, confronted my demons here, said sorry. And you know what? The patient said, you did your best doc, you know, no – no consequences. Thanks, you know, no issues.' That's in fact a good outcome for that particular surgeon. He said, I've absolutely made it bloody clear that it'll never, that's never, gonna happen again. It was a very significant experience for that person.'

Interview data 2007, medical manager

Are there barriers to more patients being told about things that go wrong?

Uncertainty about laws and policy

Health professionals are uncertain about the laws and local policy surrounding Open Disclosure. This uncertainty is understandable as states and territories have different laws about apologies and privilege (protecting some information from public release or use in a court case). There are also different policies and classifications for incident investigation. These variations contribute to health professional wariness about the consequences of Open Disclosure. In addition, healthcare staff working across different institutions, public and private, may be uncertain which policy and incident classification applies in each workplace.

There is also anxiety about what kinds of apology are permissible without incurring legal liability. As Prue Vines indicates, NSW and ACT are the only jurisdictions in Australia where a full apology ('We are sorry we made this mistake') is not admissible as evidence in a court of law[17]. In all other jurisdictions, healthcare workers can only offer 'partial apologies' ('We are sorry this happened') knowing that such apologies are not admissible in Court. The Open Disclosure Standard errs on the side of caution by only requiring the partial apology. Interestingly, the evaluation of the Open Disclosure pilot found that frontline staff will offer a full apology in cases where it is clear to everyone that the health service is at fault, to prevent patient (and family) frustration and suspicion.

The evaluation of the Open Disclosure pilot showed that apologising raises uncertainties for clinicians. Some staff are concerned and therefore very cautious, while others are comfortable with apologising unreservedly when it has become evident that the facility is responsible.

The complexity of apology

'Yes…we certainly do admit liability when we've done the wrong thing. We do it in a controlled way, though. We will check with our insurer first, because we want to be sure that we're indemnified. We will all have a good think about whether we're going to create a fresh wave of innocent victims, which is always possible if you use the wrong words and do it the wrong way.'

Interview data 2007, senior clinical manager

'And ah it was one of the most dramatic experiences I ever had. As soon as I offered that [statement about taking responsibility for the adverse event] to them, it's almost like there was a breath of fresh air coming into this room and you really could see him physically change…His tone changed, his body language changed and he was saying things like, 'so where do we go from here? So that to me was a very eye-opening experience, very.'

Interview data 2007, medical manager

The survey revealed that, with regard to less severe incidents, the statement 'Patients are not informed about less severe adverse incidents involving their care and treatment' met with 56% (strong) disagreement and only 18% agreement. 25% were unsure. Only a slight majority of respondents were sure that the patient is likely to be appropriately informed about low severity adverse events. Staff doubts or insecurity about how to structure the disclosure process for less severe events was mirrored by the finding from the patient interviews that many disclosure processes did not have the degree of formality the patients would have preferred.

Health professionals were also unsure about the policy and practice for incidents of different grades of severity. A significant minority of health professionals (20%) were unsure if 'Only severe adverse incidents are openly disclosed in my organisation', with 56% disagreeing and 20% agreeing with this statement. Uncertainty was also expressed about when, how and with whom to conduct Open Disclosure. An analysis of the interviews revealed that Open Disclosure cannot be approached as a pre-determined procedure with discrete steps. Rather, disclosure needs to consider the likely complexity of the incident, the different interpretations of the incident among stakeholders, and the variable emotional responses to the incident which may require sensitive responses on the part of staff.

Concern about the effect on medical litigation

Health professionals also worry about the effect of Open Disclosure on medical litigation. More than two-thirds of the health professionals surveyed agreed with the statement that 'Health professionals worry about litigation if an adverse incident is disclosed to patients', while 18% are unsure. Further, the survey statement, 'In my experience Open Disclosure reduces litigation' met with agreement by 55% of respondents, while 41% expressed uncertainty. This finding may suggest that healthcare staff do not feel qualified to comment on legal matters. There is no evidence from Australia on the effect of Open Disclosure on either the cost or number of claims. There is some promising US evidence [18], but its relevance for Australia is unclear.

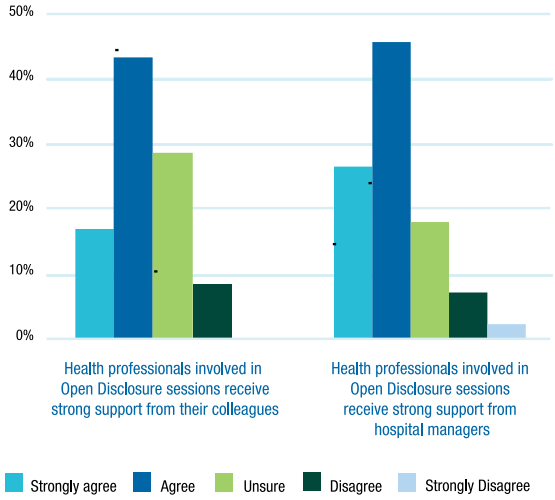
Obtaining this evidence in Australia would be a difficult, lengthy project. For example, studying insurance claims would require measurement of outcomes that are related to many factors other than the process of Open Disclosure (including the nature of harm to the patient and the socio-economic circumstances of the patient). There are other reasons to be cautious about a focus on negligence claims and risk management. In such circumstances, Open Disclosure can become a tool to 'manipulate the provider-patient relationship to the organisation's advantage' [19 p37]. Instead Open Disclosure must be viewed as good clinical practice, with a focus on effectively addressing patient grief and providing support for recovery.

Concern about the effect on reputation

Health professionals worry about their reputations if they are involved in an incident requiring Open Disclosure (78% agreement; 13% unsure). There is also a potential tension between health professionals' experience that 'The outcomes of the Open Disclosure sessions I have attended are satisfactory for the organisation' (82%) and health organisations being seen to harbour apprehensions about the effect of Open Disclosure. 48% of health professionals surveyed disagreed with the statement 'The organisation is fearful that Open Disclosure will lead to bad publicity' with 27% agreeing and 23% being unsure.

On the other hand, 72% of respondents agreed or strongly agreed that 'Health professionals involved in Open Disclosure sessions receive strong support from hospital managers'. This may link in with managers' regarding Open Disclosure as an opportunity for enhancing staff-management relationships. However, when respondents are asked whether 'Health professionals involved in Open Disclosure sessions receive strong support from their colleagues', their confidence is slightly lower: 61% agreed or strongly agreed, meaning that as many as 39% felt unsure or disagreed about receiving support from colleagues when disclosing adverse events.

Figure 7.8: Views on the degree of support received from the organisation and from colleagues



In the future, will more patients be told about things that go wrong?

Australia is working towards open discussion about all incidents that result in harm to a patient while receiving health care. More health professionals are being trained in Open Disclosure and more facilities are adopting Open Disclosure policies. This means more and more patients will be told when things go wrong. In contrast to the health professional survey data, the analysis of patient and family interviews revealed a less positive picture about how Open Disclosure was being conducted in practice [4]. While health professionals regard their uptake of Open Disclosure as an important advance on traditional practice, we may be in a 'grey space' where Open Disclosure is enacted in a variety of ways without yet meeting patient and family expectations.

For these reasons, the Commission is assisting with the development of a clearer path for extensive implementation of Open Disclosure by:

- Using the external evaluation of the national pilot to develop practical guidance about open disclosure and related processes, in the form of fact sheets for staff and a guide for patients, carers and families.
- Obtaining expert legal advice on achieving a consistent national approach which best enables, by qualified privilege or other legislative protection, to:
  - fully investigate an adverse event
  - share information with patients, families and carers about care that caused harm
  - express regret or apologise.
- Exploring one hundred patients' experiences of open disclosure, and using the information obtained to develop indicators of, and teaching resources to support, effective open disclosure.
- Developing an implementation guide to assist healthcare facilities and clinicians to implement the standard. This will be informed by external evaluation of the pilot, the legal advice and the one hundred patient stories.
- Conducting ongoing monitoring of the effectiveness of implementation of the standard and reporting on this to Health Ministers at the end of 2009.

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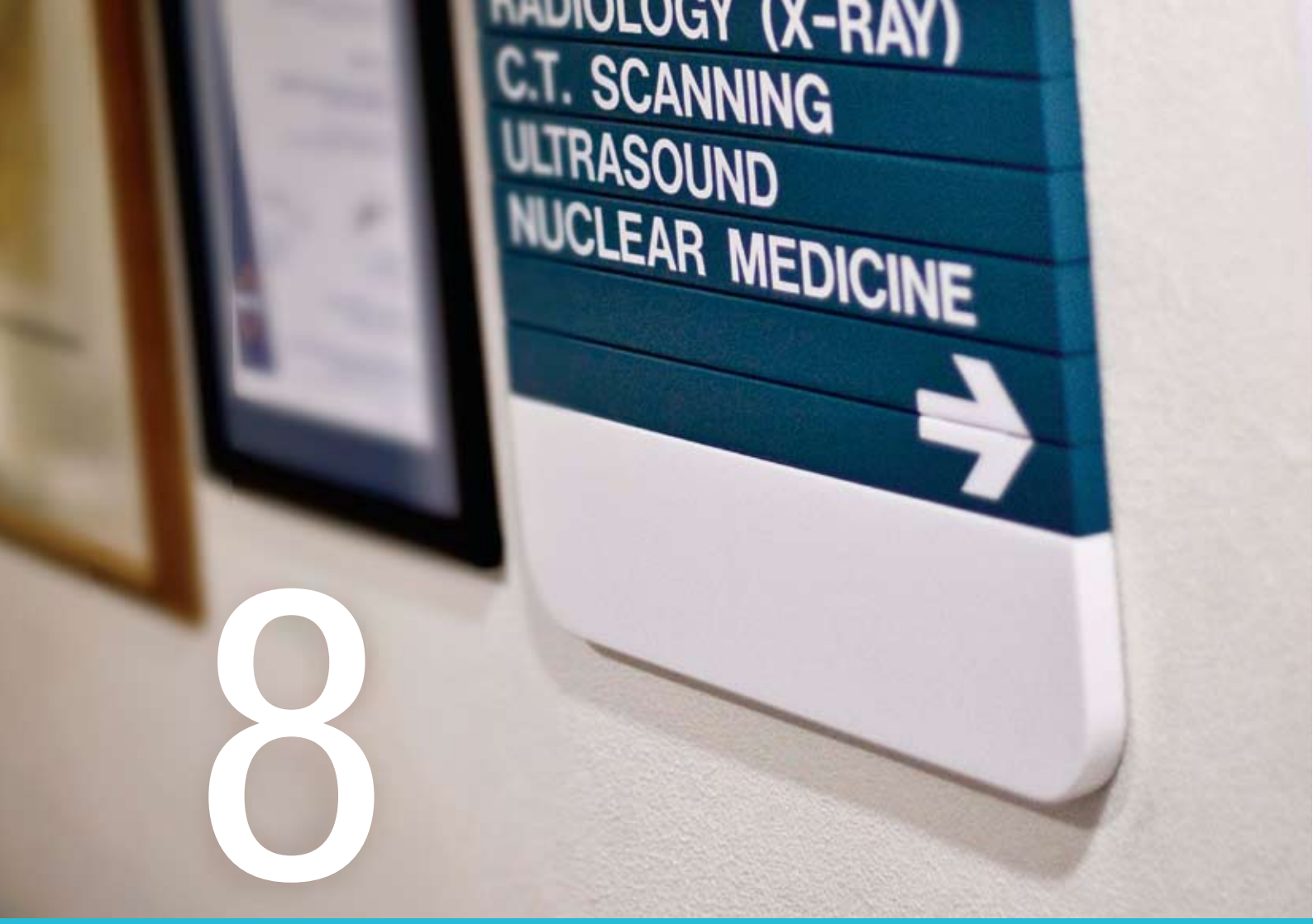

8

Accreditation

What does accreditation of a health service mean for patient care?

Accreditation of a health service provides a public marker of safe and good quality care and supports community confidence in the healthcare system. It helps to underpin patients' expectations that the care they receive will be of high quality. Despite this expectation, few members of the public are aware of the standards used to measure safety or quality of care. There is limited information available to tell patients how well health services are performing and few patients know what the accreditation of a health service means for their care.

Health Ministers have embarked on a program of reform of accreditation in health. This includes new standards in areas where there is a high risk of harm to patients and an expansion in the number of health services being accredited. There will also be improved public access to standards and information on the performance of health services, which will help consumers to make informed choices about their health care.

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What does it mean to be accredited?

To be accredited means that a health service must be involved in the regular review of its programs, services and organisation to assess if the service is safe and if processes and systems are in place to support quality care for patients. The functions of the health service will have been assessed against a set of safety and quality standards and the service will have demonstrated that it meets the standards at a predetermined, acceptable level.

Most accreditation programs operate on a multi-year cycle with different forms of assessment occurring during the cycle. Virtually all accreditation programs include self assessment, which involves a health service rating itself on how well it meets a set of standards and then taking action to improve the safety and quality. During the accreditation cycle an external assessment of the service is also carried out, generally by trained surveyors.

With higher expectations of the quality of care and increasing sophistication of accreditation programs has come greater rigour in standards development and accreditation processes. This has resulted in an emphasis on the collection and analysis of data about patient care and health outcomes as a way of measuring health service performance. Tests, such as peer visits by trained surveyors, observations of performance, self-assessment and review of staff, together with consumer satisfaction data, are used to determine how well a health service is meeting the standards. Increased training and performance management requirements for surveyors and assessors have also been introduced, in part, to improve the effectiveness of assessments and also to address issues of intra- and inter-surveyor reliability [1–3].

Being awarded an accreditation certificate does not guarantee that errors will not occur or that patients will not be harmed during their care. It does mean that an assessment to ensure that the policies, systems and processes intended to reduce risks to patients and to improve the quality of care are in place and that these are checked regularly to ensure they are being used and are still of value.

The Commission's work on accreditation

The Health Ministers' reform process led by the Commission aims to improve the effectiveness of accreditation processes and increase consumer understanding of and confidence in accreditation.

In 2007, following a national consultation with stakeholders on accreditation, the Commission developed the Alternative Model for Safety and Quality Accreditation. The consultation involved more than 150 individuals and organisations providing written submissions and over 420 people participating in 40 focus groups [4]. Health Ministers have asked that progress be made on the first phase of implementation of the proposed initiatives.

Phase one includes:

- Developing a preliminary set of Australian Health Standards.
- Determining processes, costs and possible funding options to implement the Alternative Model for Safety and Quality Accreditation.
- Reviewing of State and Territory private health fund licensing.
- Reviewing accreditation overlaps and contractual obligations between States and Territory Health services and health insurance funds.

Figure 8.1: Current accreditation model

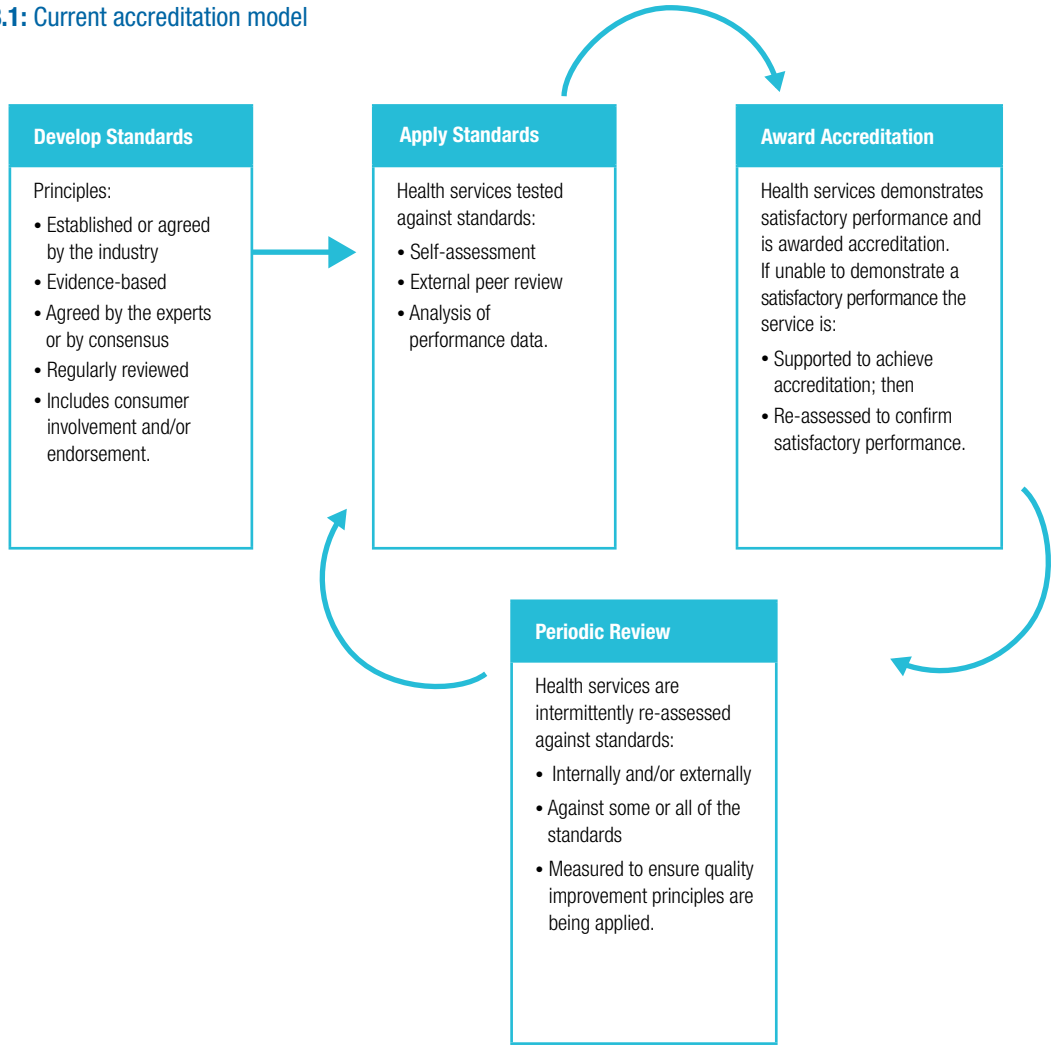


Figure 8.1 above summarises the current Australian accreditation model. It shows the essential roles, functions and processes of accreditation bodies in developing and applying standards, awarding accreditation status and conducting periodic reviews.

What do consumers know about the accreditation of health services using safety and quality standards?

Safety and quality standards are the cornerstone of any accreditation system. They specify what needs to be done to provide safe or high quality care; are a tool to help those providing services improve the care they give; and can be used as a way of measuring performance. To become accredited a health service needs to show that it is meeting a set of standards. Examples of safety and quality standards include using sterile instruments and keeping appropriate records of patient assessment and care.

Most patients' knowledge of safety and quality standards is limited. This is due to the large number of different sets of standards existing and to the lack of public reporting on health service performance against standards. These issues are detailed below.

The large number of standards makes it difficult for patients to gain and maintain knowledge of safety and quality standards

Standards exist for specific professional groups, such as general practitioners, optometrists and physiotherapists. There are also *general quality standards* such as ISO 9001 (quality management standard produced by the International Organization for Standardization) and various *Australian Standards* which are applied across health services but can also be applied across other industries. Other existing standards are *health specific safety and quality standards*, including the EQuIP standards of the Australian Council on Healthcare Standards, that

are applied across a range of health service types e.g. hospitals, community services and day procedure centres. In addition, there are *service-specific safety and quality standards* such as those for cancer and palliative care. Some existing standards are very technical, lack an obvious relevance to patients and are not readily linked to care.

Many standards are not publicly available without payment of a fee or membership of the standards or accreditation body

Even when a standard is available to the public, access to the supporting documentation may be restricted. Without these documents, it can be difficult to understand the standards, the criteria used to assess health services against the standards and how a service can be improved. While the publishers of standards do need to recoup the costs of their development, the sale of standards creates a barrier for patients seeking to understand what to expect from their health service.

Reporting on health service accreditation is often limited

Many accreditation reports simply state which accreditation agency has awarded accreditation and when accreditation expires. Areas where a health service performs very well or has weaknesses are generally not reported. Very little information is released publicly on areas of immediate concern identified by the accreditation process.

Examples of good reporting exist

In the Australian aged care sector, consumers can find quality accreditation reports on residential aged care facilities on the Internet. The report may include information about compliance with standards, the evidence inspected to make the accreditation determination and initiatives, proposed or underway, to improve the service.

In the United States, consumers can access quality reports on health services. These reports include the accreditation decision for each standard a health service was assessed against, if all or only part of the service is being accredited and commentary on the accreditation outcomes [5–8]. In the United Kingdom, consumers have access to detailed and comprehensive data on individual facilities and consumers can compare facilities via the Healthcare Commission website [9].

The Australian Council on Healthcare Standards (ACHS) publishes indicator information of participating healthcare organisations [10]. The ACHS accreditation performance report establishes benchmarks for performance and provides some useful information on health services that demonstrate a high level of achievement when accredited in specific areas of care e.g. infection control or patient care planning [10]. The indicators collected, and therefore the reports, focus mainly on acute services. As the data are aggregated, consumers are unable to assess the safety and quality of individual health services.

Does accreditation make a difference to patient care?

There have been few studies that provide strong evidence of the impact of accreditation [11]. What evidence there is suggests accreditation can promote positive changes in health care [12 13].

Generally, there is not enough research, or mixed research results, in areas such as the financial impact of accreditation, the relationship of quality measures to accreditation and whether accreditation delivers improved health outcomes.

Australian researchers Greenfield and Braithwaite reviewed 902 papers relating to research in accreditation [13]. As part of this research, the papers were analysed for the issues that impact on patient care, and the results are interpreted in Figure 8.2 overleaf. They suggest that although few people doubt that accreditation and the assessment of performance against standards is generally a positive strategy, there is not enough hard data to demonstrate convincingly how accreditation and standards make a difference. This issue is being taken seriously in Australia [14 15] and internationally [16-20].

Figure 8.2: Accreditation issues that impact on patient care, as documented in the literature [12 13]

Issues	What the literature said
Promote change	Accreditation has been found to promote change in health service organisations and the services they offer. Most of the change is judged positive.
Organisational impact	There are few studies which have measured the impact of accreditation on organisations. Those which have tended to report mixed benefits.
Financial impact	Concerns about costs of accreditation abound but little rigorous work has examined costs and benefits.
Quality measures	It has proven difficult to determine a relationship between accreditation and measures of quality such as clinical indicators, quality indicators or clinical performance measures.
Consumer views or patient satisfaction	No substantial relationships have been found between consumer views or patient satisfaction and accreditation.
Public disclosure	There is little existing work on public disclosure and accreditation. A Japanese study showed support for public disclosure of accreditation results.
Surveyor issues	Internationally, surveyors face common challenges including training, juggling careers and surveying, and meeting their own and others expectations.

What is the role of an accreditation body?

Unlike countries such as the United States and the United Kingdom, which have a small number of health accreditation bodies, Australia has a large number of organisations that provide accreditation services. Their size and structure vary widely. Some (such as TQCS International) are for profit, some (e.g. ACHS, Quality Improvement Council, Australian General Practice Accreditation Limited) not for profit and others (e.g. BreastScreen Australia) government funded organisations. Many organisations accredit only health services; others have a remit in both health and community care and accredit services such as aged care and home help. Other organisations work across different industries, including food services.

As discussed above, the standards used by accrediting bodies also vary. They include Australian and international business and technical standards, health specific standards, such as ACHS and QIC standards, and standards specific to professional groups e.g. optometry, physiotherapy and general practice. Standards developers are responsible for keeping the standards current and they may also develop tools and guidelines to help health services apply the standards in their work environment.

Which health services are accredited?

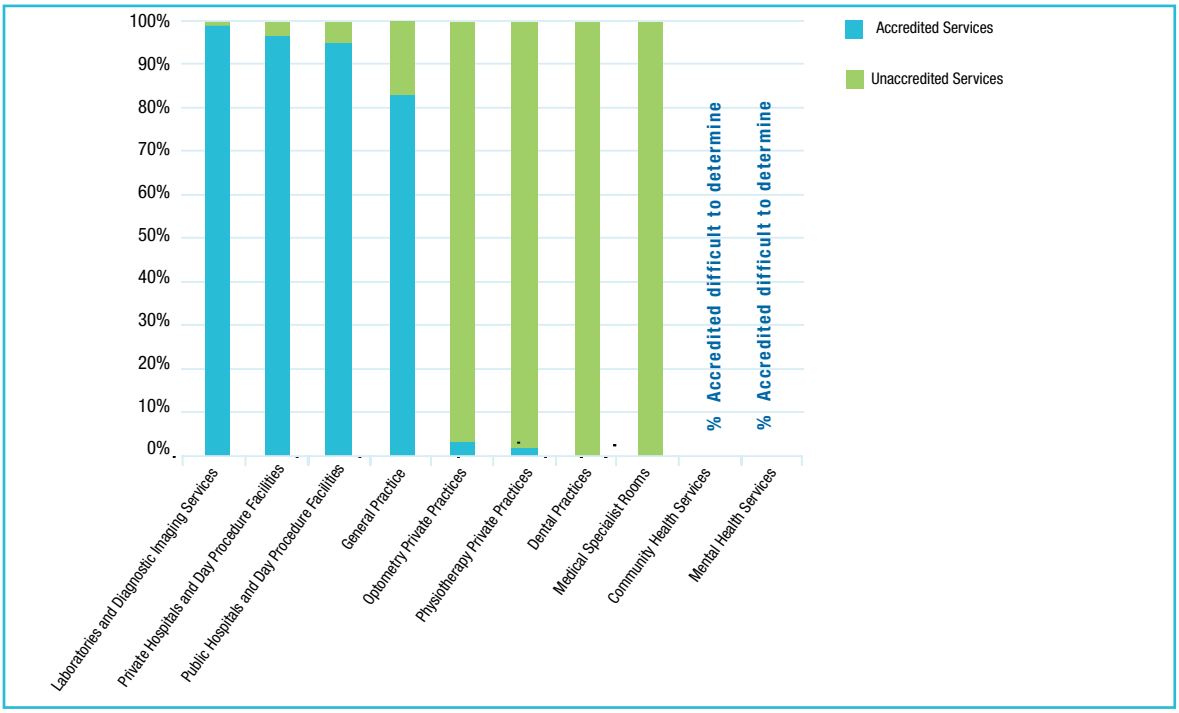
Our knowledge of the proportion of health services that are accredited is incomplete. This is partly because the number of health services is continually changing; health services are frequently restructured, renamed, opened or closed. Even knowing the exact number of health services that are accredited may not provide a complete picture of the coverage of accreditation. A health service that has ten offices can be accredited as one service or as ten different services. In broad terms, however, we have sufficient data to understand approximate coverage levels and these are detailed in Figure 8.3 opposite.

Figure 8.3: Accreditation of health services as at January 2008

Health Service	Requirement to be Accredited	Current Accreditation Coverage	Accreditation Agency
Community health services	Mandatory if: • required to access government or health insurance funding • health department policy. Voluntary for all other services.	435 community services and 332 hospitals that also provide community services. Percentage coverage difficult to determine because of the complexity and diversity of the organisational structures nationally.	ACHS QIC
Dental practices	Voluntary. Mandatory compliance in some states/territories for infection control requirements specified by registration boards.	Limited Coverage. 6 public sector and 1 private sector stand alone dental practices and 1 community oral health service, equating to less than 1% coverage.	ACHS ISO providers QIC Some State/Territory registration boards
General practice	Voluntary with Practice Incentive Payment (PIP) available to accredited practices, paid by the Commonwealth	Approximately 83% of general practices are accredited. There are approximately 7000 general practices nationally.	AGPAL GPA Accreditation
Laboratories and diagnostic imaging services	Mandatory if seeking Medicare payment for services (diagnostic imaging mandatory from July 2008).	100% coverage of pathology laboratories and from July 2008 when it becomes mandatory, 100% of diagnostic imaging services.	National Association of Testing Authorities
Medical specialist rooms	Voluntary.	Number accredited thought to be small. Difficult to determine % coverage as number of practices nationally unknown. Offered as part of continuing professional development requirements by some medical colleges.	Unknown Obstetricians and gynaecologists, physicians through royal medical college.
Mental health services	Mandatory if: • required to access government or health insurance funding • health department policy.	67 stand alone mental health services accredited. Percentage coverage difficult to determine because of the diversity and complexity of organisational structures nationally.	ACHS QIC ISO providers
Physiotherapy private practice	Voluntary.	66 physiotherapy practices are accredited, representing approximately 1.9% of practices.	QIP (Quality in Practice)
Private hospitals and day procedure facilities	Mandatory if: • holding a contract with a private health insurer • seeking payment from private health insurance funds • state/territory licensing requires this	519 private hospitals (acute and psychiatric) and day procedure facilities are accredited. This represents approximately 97% of private hospitals. AIHW reported 536 private hospitals (acute and psychiatric) and day procedure facilities were operating in 2005/06 [21].	ACHS ISO providers
Public hospitals (acute and psychiatric) and day procedure facilities	Mandatory if: • specified as health service policy • included as requirement of the Australian Health Care Agreements.	716 public hospitals (acute and psychiatric) and day procedure facilities are accredited. This represents approximately 95% of hospitals. AIHW reported 755 public hospitals and day procedure facilities were operating in 2005–06 [21].	ACHS
Optometry practice	Voluntary.	66 optometry practices are accredited. Approximately 2.2% of practices are accredited.	QIP

While there is an incomplete picture of accreditation coverage, it is clear that there is a wide variation in the proportion of health services that are accredited. For example, it is known almost 100% of hospitals, surgical day procedure centres and pathology laboratories are accredited. Accrediting bodies generally list the name of these services, but it is a laborious process to identify which services in these categories are not accredited. The number of physiotherapy, optometry, medical specialist practitioners and dental practices that are accredited is very small and the proportion of these services that are accredited cannot be determined as the total number of practices is not known. The best available data on accreditation coverage are summarised in graphic form in Figure 8.4. There is a desire amongst consumer groups to receive care from accredited services.

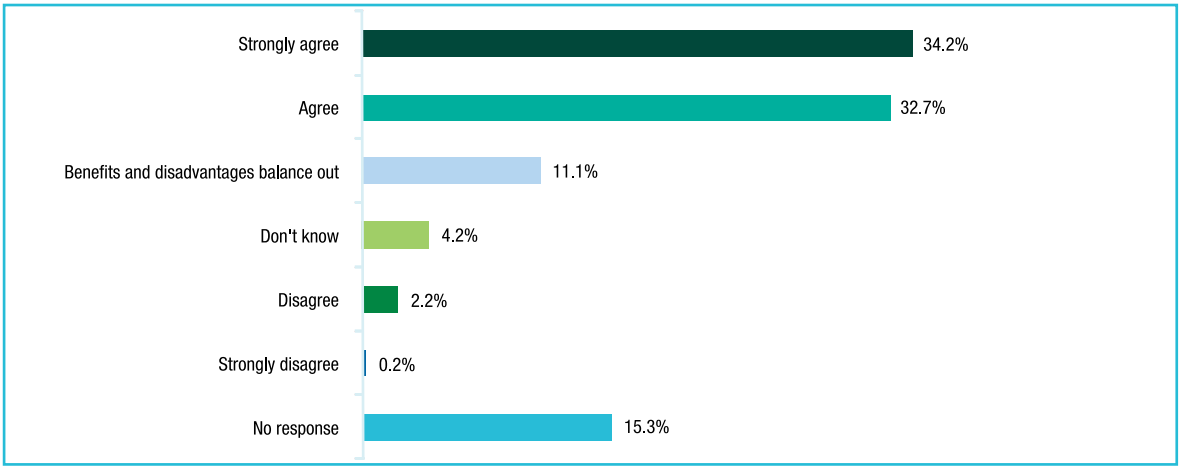
Figure 8.4: Proportion of health services accredited, by health service type, as at January 2008



Consumers are generally keen to see accreditation rates improve [22]

…'Why should [consumers] tolerate unscrutinised treatments in specialists' rooms and dentists' surgeries when we require equivalent services in GP surgeries and hospitals to be monitored?' …

Figure 8.5: Focus Group participants views on 'There would be benefits if the accreditation process was more consumer focused' (n=404 respondents) [24]



Why are some health services accredited and others not?

Health services choose to be accredited for different reasons. Hospitals, surgical day procedure centres and pathology laboratories have had in place accreditation systems for over three decades. While participation was initially voluntary, there are now sanctions or incentives that influence involvement in accreditation.
For example, pathology services and private hospitals cannot access private health insurance or Medicare funding if they are not accredited by a recognised accreditation agency. General practice accreditation is voluntary and relatively new, having been introduced less than a decade ago. However, a high proportion of general practices are accredited, partly because of the availability of Practice Incentive Payments, a program funded by the Commonwealth Government and which provides a financial incentive to participate.

Where accreditation is voluntary and not supported by incentives, relatively few practices are accredited. Many of the practices that become accredited let the accreditation lapse after they have been through an assessment cycle. It is clear that the smaller the organisation the more burdensome the task of preparation and compliance for accreditation and the more likely that accreditation will be seen as a process diverting resources from income producing or service delivery activities [23]. However some practitioners recognise the value of accreditation.

What changes are occurring to accreditation?

Accreditation is not static. A major development in accreditation in Australia is the reforms being undertaken at the request of Health Ministers. These reforms will take effect over the next five years and will potentially result in far-reaching changes. The reform package paves the way for the adoption of new standards and a national, more integrated approach to accreditation. The reform package is discussed in more detail below.

At the same time as reforms are underway, accreditation processes continue to evolve. Changes are occurring as a result of feedback from health services, participants in accreditation and consumers. Changes to accreditation processes and standards are set to increase the rigour of the standards and the accreditation processes.

A physiotherapist discusses the value of accreditation [23]

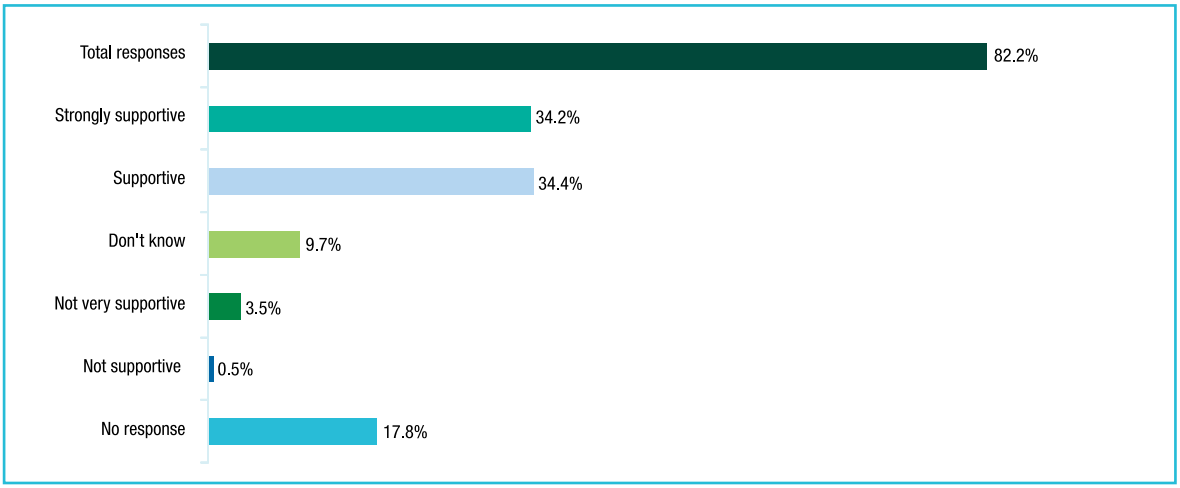
'I am more committed to the [accreditation] process than most physiotherapists, even though it is a financial burden…some physios have abandoned accreditation because money is tight and they think it doesn't add anything. They seem to think that because the standards are now embedded in their practice, why should they pay for someone to check them…but the laws of entropy mean that things will deteriorate and an external check is necessary to prevent that.'

For example, changes introduced by accreditation agencies include:

- Developing standards where there is greater use of evidence in their development and the introduction of mandatory standards for some accreditation programs.
- Using accreditation data to allow for benchmarking of performance.
- Developing electronic support tools.
- Piloting of tools to analyse organisational structure and effectiveness.
- Increasing consumer involvement in standards development, policy or clinical decision-making for accreditation.
- Supporting health services where serious risks to safety and quality have been found using a collaborative approach.
- Developing tools, training and monitoring to minimise variation in accreditation outcomes between assessors.

Long term developments in accreditation have come about due to research into the effects of accreditation. This work is of growing importance as reforms are introduced and accreditation is expanded more broadly across the health system. Research is crucial in providing better information about long term benefits and effects of accreditation and identifying opportunities for improvement. One key theme will be to sharpen the focus of accreditation on consumer needs and interests. Figures 8.5 and 8.6 show that there is strong support for improvements, and more emphasis on the consumer in accreditation standards and processes.

Figure 8.6: Focus Group participants views on 'Do you support reforms to improve safety and quality in health care?' (n=404 respondents) [24]



What will the future look like?

Stakeholders have spoken extensively with the Australian Commission on Safety and Quality in Health Care about improving accreditation [4 24 25]. As a result of their input, a package of reforms to safety and quality accreditation was endorsed by Australian Health Ministers. The key elements of the reform package are summarised below.

Once the accreditation reforms are implemented, the framework for ensuring quality care is provided to patients will be strengthened in three ways:

- The Australian Health Standards will apply to all health services, which will mean that patients can be confident that more services will be applying safety

Figure 8.7: Key features for safety and quality accreditation reform [26 27]

Features	Aims and Implementation Activities
Australian Health Standards	• Will address areas of significant safety risk or where quality can be improved. • All health services will be expected to comply with Australian Health Standards. • High risk health services will be a priority focus and will need to demonstrate compliance with the standards through accreditation.
Quality improvement framework	• Will provide a broad structure for quality improvement activities. • Will address the key corporate, risk and governance areas which support quality processes and systems improvement.
Expanded coverage of accredited health services	• Health services not currently accredited will commence accreditation against the Australian Health Standards. • Services where there is a high risk of harm to patients will be the first priority.
National data collection and reporting	• Data on Australian Health Standards will be collected and the data used to measure performance outcomes and drive improvements. • The data set will be determined in collaboration with stakeholders with the aim of achieving national data which is well-defined, credible, easy to measure, clinically meaningful and consistent.
Initiatives to support mutual recognition	• Key issues to promote include avoiding duplication of accreditation and other safety and quality processes and avoiding duplication between accrediting bodies.
National coordination	• Establish a body to lead support and coordinate reform of the safety and quality accreditation system, in collaboration with consumers, clinicians, service providers and other stakeholders.
Establishing formal obligations to comply and consequences of non-compliance	• Compliance by health services with Australian Health Standards will be mandatory, through the use of regulatory mechanisms. • Sanctions and penalties for non-compliance will be clearly stated and applied in a graduated way, with persuasion being the first approach.

and quality standards and more services will be tested to confirm they are meeting the standards.

- There will be a mechanism to collect information about compliance with safety and quality standards and to present this information to patients in ways that help them to make decisions about their health care.
- Consumers will be able to become much more involved in accreditation processes and decision-making.

The accreditation reforms will also change the approach to safety and quality taken by health services as:

- More services will be accredited to determine compliance with safety and quality standards.
- There will be a national, integrated approach to accreditation, which will include providing health services with a place to go for advice on safety and quality improvement.
- Data collected by health services including safety and quality indicators will allow analysis and review of ways of improving.

Australia has had accreditation for over three decades and was one of the first countries to introduce safety and quality accreditation. Substantial progress has been made in that time. However, improvements still need to be made. Consumer interests need to be given greater prominence and accreditation and standards strengthened further.
The Health Ministers' reform process, led by the Commission and underpinned by strong stakeholder agreement and research evidence, is a key part of this development.

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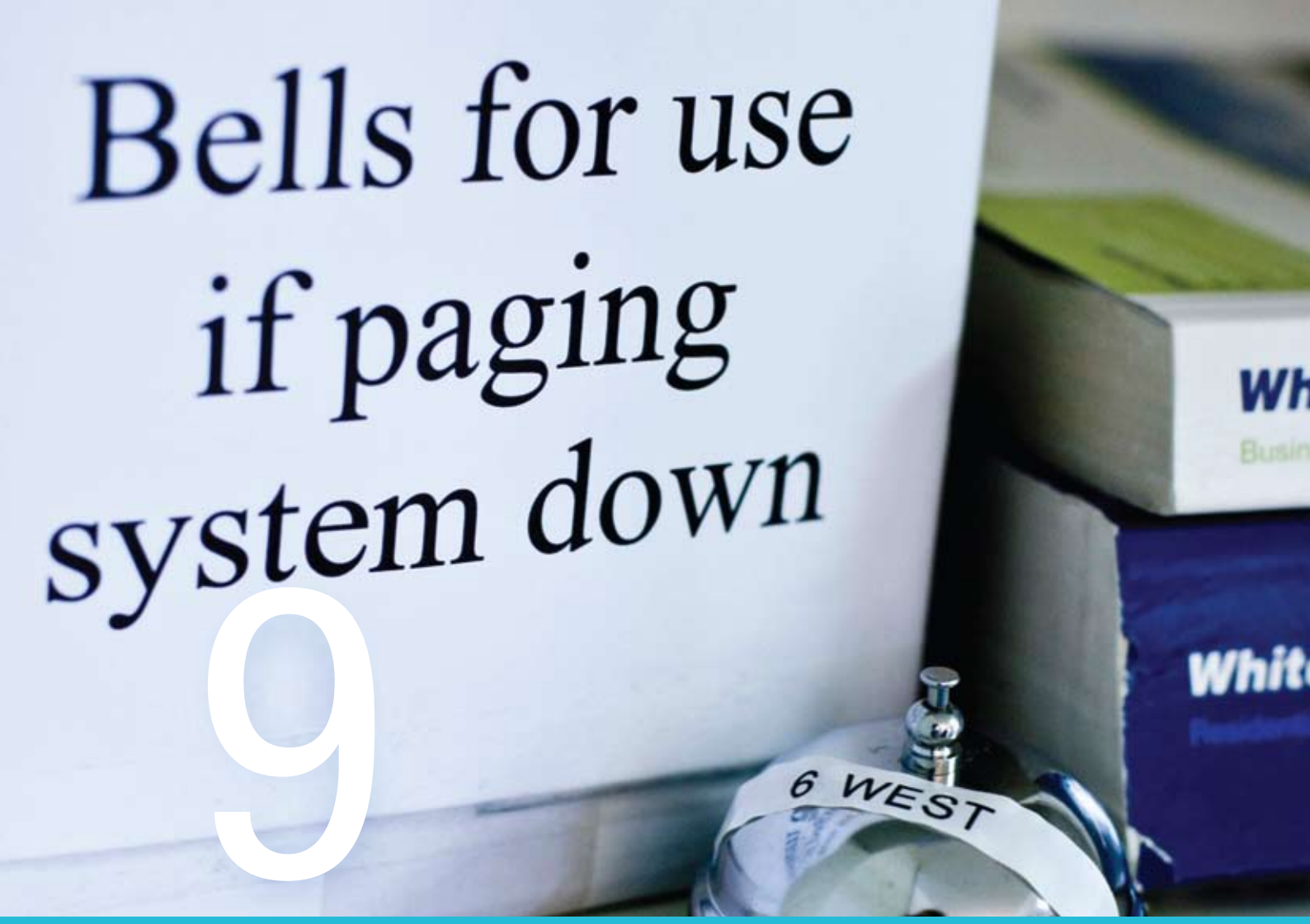
Notes

i. In May 2008, the Australian Dental Association provided an estimate of the number of Dental practices in Australia to be between 5900 and 6200.

ii. The IBIS World report from December 2007 reported on Physiotherapy Services in Australia (Report 08653 pg 10). They estimated in 2007–8 physiotherapy employs 12,613 people across 4,474 employer establishments. The Australian Physiotherapy Association estimated that there are more than 3,525 practices nationally.

iii. The Optometrists Association of Australia estimate there are 3000 optometry practices nationally, including visiting practices which may be staffed only one day a week and practices located in dispensing retail outlets.



9

Sentinel Event Reporting

What role can reporting serious adverse events play in improving the safety and quality of health care?

Reporting of adverse events – when things go wrong – is crucial to enable investigation and then improvement in the safety of the health system. Reporting is also the important first step for ensuring that open disclosure to patients occurs.

The eight sentinel events which Health Ministers asked public hospitals to report on in 2004 represent only a sample of adverse events and in 2008 comprehensive reporting and investigation systems are standard in both public and private hospitals. The challenge for the future is to ensure we maximise the investment the Australian healthcare system has made in incident reporting so that system problems are identified and then corrected to reduce the likelihood of further error.

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Understanding adverse event reporting

While most patients in hospitals are treated and discharged without any unexpected difficulties, sometimes things go wrong. Error is a sensitive issue that hospital staff find difficult to discuss openly [2]. Adverse event reporting ensures that we learn from experience [3] and engage staff in safety activities [4]. Adverse event reporting allows problems in the health system to be identified and solved [1]. The World Health Organization has stated that 'enhancing the safety of patients includes three complementary actions: preventing adverse events; making them visible; and mitigating their effects when they occur ' [5].

The Commission's work on learning from patient safety incidents

The Commission is currently funding a project which aims to develop improved ways to use data from incident reporting systems. The project focuses on incidents relating to two patient safety areas that are current Commission priorities: patient identification and clinical handover. These will be analysed and two reports published.

This project is being conducted by the Australian Patient Safety Foundation in collaboration with Centre for Health Informatics of the University of NSW, Human Factors and Safety Management Systems Group of the University of South Australia and Communio. The project aims to:

- Identify key lessons that can be learned from incident information in the areas of clinical handover and patient identification.
- Develop a methodology for drawing together such information.
- Explore the value of this activity for national learning.

Study of incidents can clearly improve local safety. The project will help the Commission determine how this data can contribute to safety improvements at a national level.

Adverse events in health care – important terms and concepts

Learning from error

Modern understanding of error draws heavily from the work of James Reason [6-8], where system failure is an important concept: '…accidents occur because individuals who operate and manage complex systems are themselves not sufficiently complex to sense and anticipate the problems generated by the system' [9]. The study of incidents enables identification of system problems that can then be corrected to reduce the likelihood of further error.

Reporting systems [10 p47]:

- Provide the public with a minimum level of protection by ensuring that the most serious errors are reported, investigated and followed up.
- Provide an incentive for health organisations to improve patient safety to avoid public exposure.
- Require all organisations to invest in patient safety.

Terminology

Any reporting system involves a systematic gathering of information, but in the area of adverse events there is confusing and duplicative terminology. Adverse / reportable /serious /unintended /sentinel /significant / preventable may all precede an event description such as error /event /accident/ incident/ near miss /occurrence / outcome /complication [10]. Victorian health staff in 2005 offered 39 definitions for 'adverse event', 20 definitions for 'sentinel event' and 46 definitions for 'near miss' [11 p42].

The terms 'adverse event' and 'incident' are in most common use in Australia. The term 'sentinel event' is generally being replaced in the US by 'never events' [12]. The term 'never events' perhaps carries a stronger imperative for preventative action, however it certainly implies that individuals or institutions should feel a sense of shame when such events occur. A culture of shame and blame creates a negative environment for adverse event reporting [13]. This is contrary to what is known about the organisational 'safety culture' required for learning and system improvement [14]. A shift towards a culture of openness and learning is believed to provide more opportunities to improve safety [3].

Limitations of adverse event reporting

Only a small percentage of adverse events or errors are reported

Error is ubiquitous in both daily life and in health care. A prospective emergency department study revealed 346 non-duplicative errors (18% of patients) in seven days (versus the 6-12 per month formally reported) [15]. One or more medical errors were found to occur in two thirds of a group of paediatric patients and contributed to adverse outcomes in one third [16]. Events may not be detected by staff [17] if they are not within the classifications required for reporting. Published estimates of rates of reporting to incident reporting systems are as low as 1-4%[10 p56], but for rare and severe events more complete reporting is likely [18].

An analogy demonstrating the importance of sentinel event reporting

'The value in reporting sentinel events is not in numerating the events and, indeed, 'true' rates of adverse events are unlikely to be discoverable with certainty. A traffic analogy illustrates this point. If 1000 speeding tickets were issued on one day in a city, this does not mean that only 1000 motorists were speeding that day. Nor does it mean that twice as many motorists were speeding on that day, if 2000 tickets were issued because of a blitz on detecting speeding. The same is true of adverse event reporting. Reporting is there to provide information for, and to help prioritise, action – not merely for tracking purposes. It is the ability to understand why events occur, and take action to prevent them, that is the real value of reporting.' [1]

Only certain types of adverse events are collected

Incident reporting systems primarily collect errors of commission [19], yet chart review suggests that acts of omission are implicated in twice as many adverse events as acts of commission [20]. Of doctors surveyed in South Australia, 81% thought they should always report when the patient gets the wrong treatment, but only 57% thought they should report when a patient does not receive necessary treatment [20]. Reporting rates by doctors are especially poor [21]. Reporting by nurses means a preponderance of certain types of events: either execution of procedures by nursing staff or adverse events that nurses will witness (e.g. falls). Incidents in the planning, coordination and administration of treatment by medical personnel will more rarely be reported [22]. Collection of near misses may not be emphasised. Near misses occur far more frequently than actual adverse events, providing a good data source [4] and also showing possible solutions (that is, how the problem was dealt with at the time so as to avoid the occurrence of an adverse event and whether that solution is viable for system improvement) [13].

Hindsight bias is always present in analysis

The known outcome of an adverse event causes hindsight bias, which results in an exaggerated assessment of preventability and causal factors [23]. The effect of hindsight bias upon the data collected is difficult to estimate, but it may be substantial and can lead to incorrect interpretation of the data [24].

Reporting may attract unhelpful media coverage

Under-reporting is endemic, and with neither complete error ascertainment nor uncontroversial denominator data being available [25], no estimates of rates or trends are reliable. We cannot use incident reporting data to understand the epidemiology of error [26] nor can we use it to track improvement. As discussed in Chapter 3, incident reporting will never be a valid method for determining useful rates or benchmarking. Yet much is made of simple counts of incident data.

Media coverage of sentinel event reports in Victoria

Public hospital errors rise 40%

Victoria's public hospitals have reported a sharp rise in medical errors…a 43% jump on the previous year's 85 reported cases and 21 deaths. However, experts regard the reported sentinel events – infrequent, clear-cut serious events that can have disastrous result for patients – as only a fraction of the serious medical errors that occur in the state's hospitals.

The health department response: 'The hospitals that report the most are the best hospitals because they…have a culture of reporting and dealing with issues. That's my feeling and that's what the literature tells us'.

The Age, Tom Noble, October 31, 2005

29 deaths connected to clinical mistakes

The 91 incidents are believed to be a fraction of the serious errors in hospitals, many of which go unreported. While the number is lower than the 122 incidents, including 34 deaths, that hospitals reported in the previous year, authorities say that does not necessarily mean the true number of errors has gone down.

The health department response: 'the government wanted to encourage reporting, and if hospitals were named there would be more reluctance to report errors…the point of the program was to identify problems so patient safety could be improved'.

The Age, Carol Nader, 5 October, 2006

Medical disasters kill 38 patients

Avoidable hospital catastrophes killed 38 Victorians in the past year. The deaths are a third higher than a year ago and the highest recorded since the State Government set up the Sentinel Events Program five years ago.

The health department response: 'It is vital our services report on these events so we can learn from them and endeavour to reduce such tragedies in the future'.

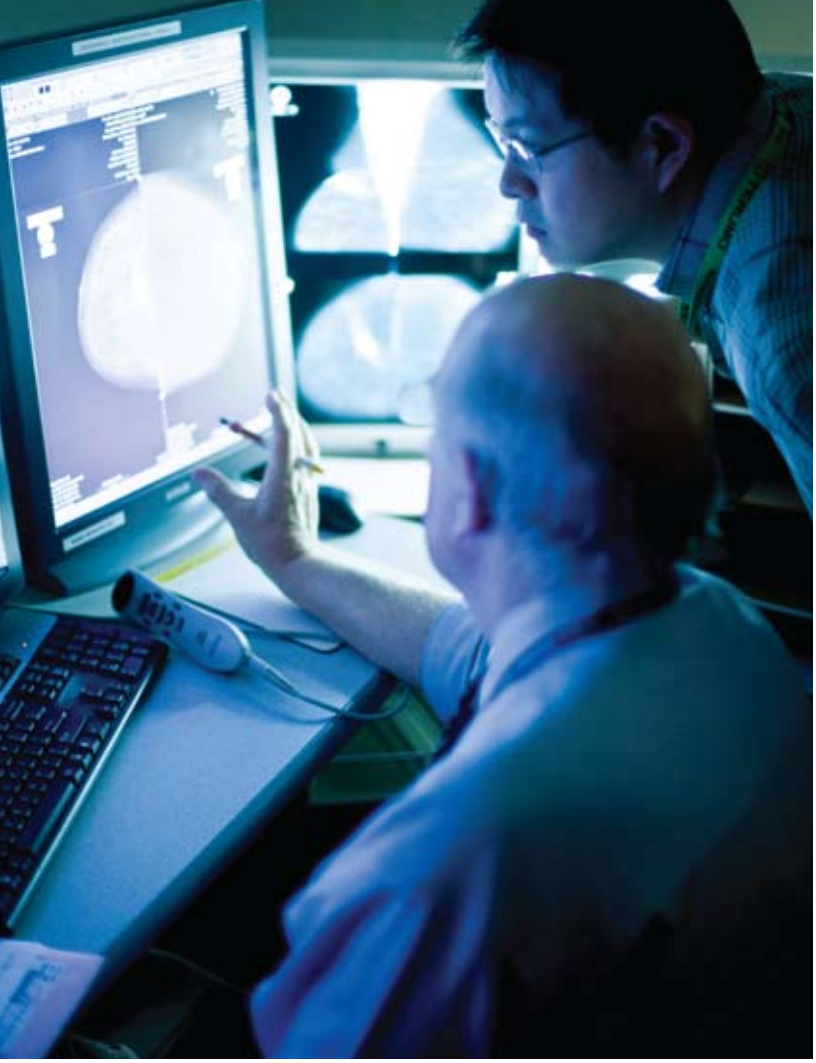
Herald Sun, Peter Mickelborough, 21 December, 2007

In 2004, Australian Health Ministers agreed on eight sentinel events that must reported nationally by public hospitals [1]. Sentinel events were defined as 'events in which death or serious harm to a patient has occurred'.

Eight sentinel events to be reported nationally:

- Procedures involving the wrong patient or body part.
- Suicide of a patient in an inpatient unit.
- Retained instruments or other material after surgery requiring re-operation or further surgical procedure.
- Intravascular gas embolism resulting in death or neurological damage.
- Haemolytic blood transfusion reaction resulting from ABO incompatibility.
- Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs.
- Maternal death or serious morbidity associated with labour or delivery.
- Infant discharged to the wrong family.

The list only represents a sample of events, as it accounts for only about 10% of the serious adverse events that are reported in state adverse event reports. It is a mixture of events with severe consequences (e.g. medication error leading to death, or suicide while an inpatient) and event types (e.g. the category for procedure involving the wrong body part includes X-rays) [27]. A more systematic method of categorisation is the norm in modern incident monitoring systems. On a national level, the specifics of the definition between states and territories differs, making comparability difficult [1]. This was discussed in Chapter 3 with reference to patient mismatching.



Sentinel event data in Australia 2005 – 2007

Private hospitals have voluntarily provided the Commission with data on sentinel events that occurred in their facilities. These data have been collected using the same sentinel event definitions as used by the public health sector. The data provided by the private sector is reproduced in Figure 9.1 opposite, showing the number of sentinel events in private hospitals in 2005–06 and 2006–07.

As in public hospitals, private hospitals monitor and maintain multiple safety and quality standards. One of the four key areas identified by the Australian Private Hospitals Association (APHA) in their ongoing development of the private hospital industry is 'driving the safety and quality agenda' [28]. This commitment to ensuring not only the delivery of safe and quality care but also to be involved in improvement demonstrates their increasing role in the development of safety and quality initiatives in Australia. This work is supported in the APHA by their Safety and Quality Committee.

Christine Gee, President of the Australian Private Hospitals Association, says:

'In the last 25 years, private hospitals have evolved from a small cottage industry providing a limited range of services to now become a vital component in Australia's acute health care sector. The private hospitals sector accounts for 32% of all hospital beds, although it treats almost 40% of admitted patients, provides 56% of all surgery and 43% of hospital-based psychiatric care.

I am proud of the voluntary inclusion of private hospital sector data in this report although I believe strongly that a single national reporting framework is required to ensure the consistent national collection of meaningful and robust safety and quality data across both the public and private sectors.

For too long now the public and private hospital sectors have functioned in silos, and much can and should be done to ensure that the whole health sector can function more effectively. Certainly if we look to ensuring and protecting the genuine interests of the consumer/patient we will be able to achieve significant improvements that will deliver a much more efficient, effective and high quality health system for all Australians.'

Public Hospitals are continuing to report on sentinel events, as required by governments. Most states report to the public each year on sentinel events, providing detailed reports and analyses of their data. The most recent data for public hospitals (aggregated nationally) are reported in Figure 9.2 opposite.

Figure 9.1: Sentinel events in Australian private hospitals 2005–06 and 2006–07

Sentinel event	Number of occurrences 68% of private hospital beds 2005–06 *	Number of occurrences 68% of private hospital beds 2006–07
Procedures involving the wrong patient or body part	13	28
Suicide of a patient in an inpatient unit	5	4
Retained instrument or other material after surgery requiring re-operation or further surgical procedure	16	27
Intravascular gas embolism resulting in death or neurological damage	1	3
Haemolytic blood transfusion reaction resulting from ABO incompatibility	2	1
Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs	0	0
Maternal death or serious morbidity associated with labour or delivery	7	4
Infant discharged to the wrong family	0	0

* Note that Affinity Health (the then largest private hospital group) was sold in 2005–06. It is not possible to be certain whether data from all former Affinity hospitals is included in this report for 2005–06 and therefore caution should be exercised in interpreting the data for that year.

For the reasons discussed in Chapter 3 and on page 85, sentinel events numbers cannot be expressed in percentage terms. However, data on the number of people who are treated or give birth in hospitals can provide some context for these sentinel event figures. In 2005-06, there were more than 2.9 million separations (discharges) from private hospitals and more than 4.4 million separations from public hospitals [29].

Figure 9.2: Sentinel events in Australian public hospitals 2005–06 and 2006–07

Sentinel event	Number of occurrences Public hospitals 2005–06	Number of occurrences Public hospitals 2006–07
Procedures involving the wrong patient or body part	66	159 *
Suicide of a patient in an inpatient unit	25	41
Retained instrument or other material after surgery requiring re-operation or further surgical procedure	28	28
Intravascular gas embolism resulting in death or neurological damage	2	3
Haemolytic blood transfusion reaction resulting from ABO incompatibility	1	2
Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs	5	11
Maternal death or serious morbidity associated with labour or delivery	12	13
Infant discharged to the wrong family	0	0

* The increased incidence of this event in 2006–07 is primarily due to a jurisdiction expanding its definition of 'Procedures involving the wrong patient or body part' to include incidents which occurred outside operating theatres (i.e. in dental, diagnostic, radiotherapy, laboratory and other areas).

Conclusion

Improving patient safety is a concern for both public and private hospitals in Australia and obtaining information from adverse event reporting, analysis and investigation is an important part of achieving this. Most safety experts promote the use of a spectrum of measures [18 26 30] to monitor safety in ways that can assist with improvement. Useful information about adverse events, their causes and solutions can also be obtained from: medical chart review, use of routinely collected data, complaints analysis, real time patient safety audits, ethnographic observation, failure modes and effects analysis and safety culture assessment.

All methods have advantages and disadvantages and highlight different problems in care. For instance, although a very low percentage of patients who have suffered an adverse event complain [31 32], of the complaints received by the New Zealand Health and Disability Commissioner, a preventable adverse event was identified in 51% of complaints [32]. Patients, when given the opportunity, report quite different events compared to staff, for example the medical record or X-Ray not being available when needed or insufficient painkillers being given [33].

The eight sentinel events are only a sample of the large number of incidents and adverse events that are reported, investigated and analysed in Australia. The bulk of analysis and reporting from incident reporting systems appropriately remains at levels where the data is contextualized; local analysis and action are the major source of improvements.

Reporting alone does not improve patient safety. The quality and quantity of such data is insignificant compared with the quality and quantity of improvement activities that reporting generates. Reporting of the eight sentinel events provides a marker and public statement that institutions in both the public and private hospital sectors are learning from error and working to improve safety.

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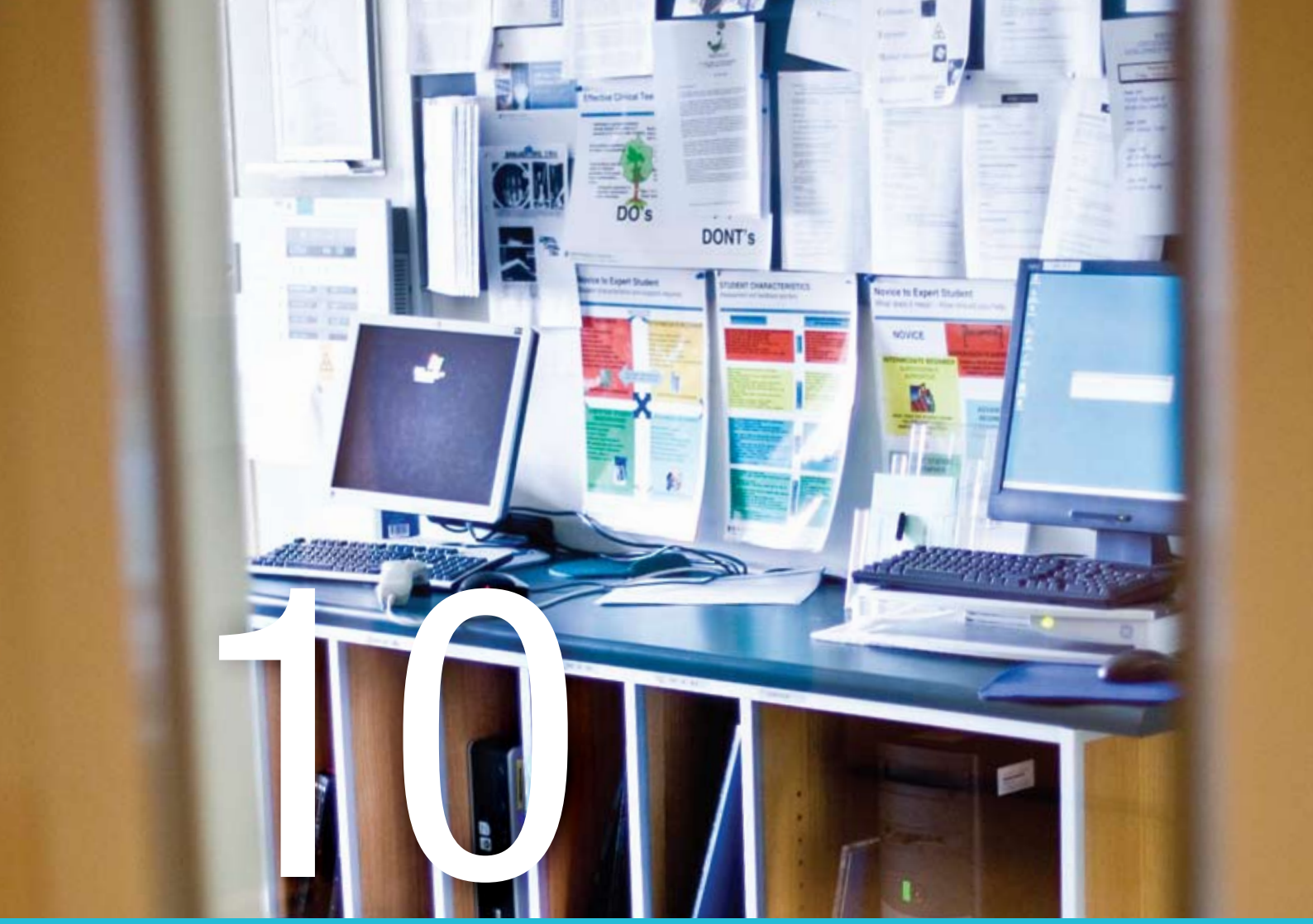


10

Information Strategy

What else do we need to know about the safety and quality of patient care? How and when will we know it?

Doctors and other health professionals have long been concerned about the safety and quality of the care they provide. However, until recently, there has been little systematic study of the outcomes of health care. With greater computerisation of health care generally, it will become possible for patients, health professionals, hospitals and funders of health care to have an overall picture of how they are doing and where improvements are needed. Much useful information is already collected, but we need a better understanding of how various types of data fit together. The flow and use of information can greatly enhance the safety and quality of care both at the point of care and through wider understanding of the results of that care. We need to be able to collect, analyse and compare information more efficiently and effectively by making better use of existing and emerging technologies and the information they collect and generate.

Associate Professor Terri Jackson Australian Centre for Economic Research in Health, The University of Queensland
Dr Niall Johnson Australian Commission on Safety and Quality in Health Care

There are many ways in which information technology can be used to improve the safety and quality of care

Imagine your friend Carolyn is going to hospital for planned cardiac surgery

1. Prior to admission, the risks related to the surgery are explained to Carolyn in terms of the particular hospital's clinical outcomes and adverse event records, for female patients having the same operation who are roughly her age and who have similar pre-existing illnesses (Carolyn has asthma), compared to the average hospital in the state.
2. On admission, Carolyn is asked to sign a consent-to-treatment form that includes her consent for the use of de-identified data from her hospital stay and any follow-up care, for future research and quality assurance studies.
3. During her hospital treatment, Carolyn experiences a serious anaesthetic complication, and this information becomes part of the hospital's patient safety monitoring. This adverse event prompts an internal review by the hospital of all similar cases to better understand what went wrong.
    - Analysis of computerised theatre records shows that body-weight/dosage calculation problems were a common factor in the series of similar cases reviewed, and automated alerts are put in place to prevent such errors in future.
    - Records for all surgical patients are reviewed and show that patients with asthma have three times the risk of a serious reaction to dosage errors than other patients, and further clinical research is initiated.
4. To enhance medication safety, the dispensing nurse on the ward is required to scan their staff identification, Carolyn's wristband (with a barcode incorporating her Unique Health Identifier) and the medication(s). These are automatically checked to ensure that firstly, the nurse is authorised to give this medication to Carolyn and secondly, that Carolyn should be receiving this dosage of this medication (and not a similar sounding one) at this time.
5. When she is discharged from hospital, Carolyn is booked in for a series of physiotherapy sessions and is also enrolled in a clinical trial of alternative approaches to acute rehabilitation, which makes use of computerised information from her inpatient stay.
6. She is prescribed a new molecular therapy which has preliminary safety approval but is still under review by the Therapeutic Goods Administration (TGA) for long-term safety and effectiveness. Her Unique Health Identifier is flagged with the drug's code so that information on future prescriptions, outpatient treatments or hospital admissions will be added to a TGA safety database.
7. Carolyn's general practitioner (GP) is sent a detailed extract from her hospital record, including a warning about the anaesthetic complication she experienced in hospital. The GP is also given a time-limited password to gain access to her computerised hospital records for follow-up care. An electronic discharge summary is sent automatically to her GP and other care providers, and the information is added to her Individual Electronic Health Record. As Carolyn has granted them access to her record, all her healthcare providers can access this information online and have accurate and up-to-date information when they next see her.
8. At the end of the month, the hospital's patient safety analyst summarises information from all the de-identified patient records for the month (including the record of Carolyn's hospital stay), and gives each clinical unit a report on their adverse clinical incidents, compared with those for the past year and with current outcomes from their 'peer' hospitals interstate.
9. Carolyn agrees to be contacted in three months to answer a questionnaire about her hospital stay, including questions about her satisfaction with her hospital treatment and also asking about the outcome of the surgery as recurrence or relapse may occur after some kinds of surgery. Some of this information may be added to the records or a registry for assessment of outcomes, and assessment of efficacy and quality of treatment. Analysis of follow-up data from Carolyn is used to improve patient care.

At present you must keep imagining because the information collected during Carolyn's treatment is not routinely used in this way.

We need improved information about the safety and quality of health care

The use of information technology has changed many aspects of modern life and made information easily accessible for many purposes. The scenario of Carolyn, the cardiac surgery patient, is a fictitious one. But each step shows how more systematic collection and use of computerised information could improve both an individual patient's care and the care of future patients. It wouldn't take much to harness these systems for safety and quality improvement.

Information about things going wrong in health care has always been sensitive. Often such information is used, fairly or unfairly, to blame individual providers of health care, even when they could have done little to prevent the problem [1]. Patient safety experts have recognised that this emphasis on blame keeps us from understanding and improving the healthcare information systems and from learning from our mistakes [2]. Sometimes healthcare workers do the wrong thing and then they must be held accountable [3]. However, when healthcare teams work on the principle of a 'just culture' the goal is not primarily to apportion blame, but to fix the underlying communication and organisational processes that may lead to patient harm [4].

Future developments in electronic health records and record linkage will expand the range of information that is quickly and easily available. While much attention has been focussed on electronic records for use in actual patient care, much less has been given to how the information can be used to systematically improve the safety and quality of that care.

Different users of information have different information needs. These differing needs may include such aspects as different levels of identification of facilities, different categorisations of procedures and treatments, different levels of risk-adjustment (e.g. taking account of how sick the patient is or whether treatment is emergency or planned), different levels of public reporting or confidentiality, and different needs in terms of the timeliness of reporting. To identify and fix a developing problem in care, health professionals and hospitals need to be able to respond quickly as well as to monitor their performance over time. Patients need information on how their healthcare providers are performing currently, not outcomes from three years ago.

One of the key principles of the Commission's Information Strategy is that all people and organisations with an interest in the health system should have access to information that is relevant to them and their role in improving quality and safety of care. Figure 10.1 opposite suggests the minimum information needed at each level of the system.

The Commission's Information Strategy

The Commission has a number of projects designed to enhance the use of information for safety and quality improvement. The initial projects include:

- Developing operating principles and technical standards for *Australian Clinical Quality Registries*, to promote the quality, consistency and efficiency of clinical registries. Compliance with the principles and standards will signify that a registry:
  - Has clearly specified and timely mechanisms to provide feedback into clinical practice, including reporting and benchmarking.
  - Contributes to understanding of events, treatments and outcomes.
  - Adds value over and above the routine collection of data, with the aim of improving patient care.
- Working through the Australian Institute of Health and Welfare (AIHW) to develop a standard national set of safety and quality indicators.
- Working with the Australian Centre for Economic Research on Health (ACERH) to understand the economic effects of diagnoses acquired by patients during their hospital stay.
- Seeking to improve learning from reported patient safety incidents by developing a methodology for drawing together information from individual incident reports.
- National capacity to measure and monitor safety and quality in health care by enhancing data quality and consistency.

Figure 10.1: Minimum Suggested Information for Each Level of the Health System

Who	What	Why	When
The public	Publicly reported, risk-adjusted performance measures and information about what is being done about identified problems	Assurance that someone trustworthy is monitoring health care standards and outcomes	At least annually
Patients and their families	Timely information on risks specific to their condition and healthcare providers	Assurance that providers of health care pay attention to minimising the risks of health care; choice of whether and where to seek treatment	When they need to access healthcare services
Public healthcare funders	Comparative, risk-adjusted information on quality of care and value for money provided by funded services	Duty of care to patients and citizens	At least annually
Private healthcare funders	Comparative, risk-adjusted information on quality of care and value for money provided by funded services	Duty of care to patients, contributors and shareholders	At least annually
Specialist doctors, general medical practitioners and allied health practitioners	Confidential information on the outcomes of the patients they have cared for and the care they have provided	Professional obligation to maintain highest possible standards of care	At least monthly
Professional registration boards	Confidential, risk-adjusted information on outcomes of care	Obligation to safeguard professional standards	As required to investigate notifications of substandard care
Hospitals and other health care facilities	Confidential information on the outcomes of care provided in the facility	Duty of care to patients and funders	At least monthly

What information is currently available?

Information for the public

The public expect governments to regulate providers of health care so as to protect their health and ensure the quality and safety of care. When serious safety breaches occur, the public expect that governments will act to safeguard patients from further harm. The public also expect to be provided with information about these regulatory processes, so they can be confident that governments are fulfilling these functions.

The publication of information about sentinel events also provides citizens with some information about serious adverse events occurring in hospitals. Chapter 9 of this report contains sentinel events data for 2005–06 and 2006–07. This includes data provided by the public hospital sector and volunteered by a large part of the private hospital sector. Information on sentinel events is of variable quality and coverage, with limitations including questions of definition, coverage, adequacy of categorisation and comparability. Consequently, sentinel event information alone is of somewhat limited value.

In coming years, the range of quality measures will grow. For example, implementation of Australian Health Standards will provide information on the safety and quality accreditation of health services. The Council of Australian Governments (COAG) agreed in late 2007 to build and report a comprehensive set of performance measures across the entire health system, including indicators on the safety and quality of health care [5]. The healthcare system will thus be better able to provide all of us with information on how the system is functioning and also motivate providers to achieve better outcomes.

Information for patients

Patients currently have access to relatively little information about the safety and quality of their healthcare providers and facilities. As discussed in Chapter 8, most patients also have limited knowledge of safety and quality standards, partly due to a reluctance across the system to report publicly on health service performance against standards.

Health care practitioners often display their degrees and qualifications on the wall to assure patients that they have undertaken appropriate training and are registered in their chosen profession. These provide patients and their families with reassurance that some authority is providing a safeguard by registering and inspecting providers, facilities and services, and helping them improve the quality of care provided. Professional medical colleges oversee the training of individual medical specialists and general practitioners.

All states have professional registration boards and health care complaints bodies to investigate patients' concerns about the quality of the care they have received. While little of this activity may be visible or known to patients, the existence of such processes gives reassurance that processes are in place to fix obvious problems with care.

Some states conduct patient satisfaction surveys of recently discharged patients. Victoria, for example, publishes results from an annual survey on a range of patient-relevant dimensions, such as how well information was explained to the patient (see Figure 10.2 opposite). Results of such surveys take a considerable time to process and are not publicly available for specific hospitals. New South Wales conducts a patient survey based around the eight dimensions of patient-centred care (see Chapter 2) and publishes the results by Area Health Service [6]. In Queensland, the results from such a survey are used in a benchmarking process, which involves hospitals comparing their results with similar hospitals so that they can learn from each other [7].

Information for public and private healthcare funders

Much of the information healthcare facilities provide to funders is derived from patient care records. Whenever a patient is discharged from a public or private hospital, their record is summarised as a series of diagnosis and procedure codes that are sent to the health department, along with information on the patient's age, sex and postcode. This routine hospital information, sometimes called 'administrative data', is used to investigate the patterns of serious disease, the need for additional facilities or specialist services and, increasingly, to understand common in-hospital safety and quality issues such as infections, patient falls and pressure ulcers. In some states, health departments also publish this information on their websites to give patients and the public information about the performance of public hospitals.

In addition to the routine hospital data, state health departments request or require hospital staff to report sentinel events and, in some states, other 'critical incidents'. Hospitals are also required to investigate

Figure 10.2: Treatment and Related Items Index - Victorian Patient Satisfaction Monitor 2006–07 [8]

Numbers in this table reflect the ratings provided by patients on a five point scale

	Year					
	2001	2002	2003	2004	2005-06	2006-07
How well information about treatment was explained	4.11	4.15	4.15	4.15	4.01	3.99
Communication between doctors/nurses/ other staff	3.96	3.99	4.00	3.98	3.92	3.87
Help received for pain	4.21	4.22	4.23	4.22	4.18	4.14
Opportunity to ask questions	4.00	4.01	4.03	4.00	4.07	4.04
Explanation of purposes of medicines	3.89	3.90	3.91	3.90	3.93	3.90
Explanations of side effects of medicines	3.65	3.65	3.67	3.67	3.70	3.68

the 'root causes' of such events. Some states use the information from incident reporting systems to produce reports on sentinel events [9-11]. However, when a comparison was done between the routine hospital data and the sentinel events reported by healthcare staff, it was found that some categories of sentinel events were more frequently identified in the routine data (for example, surgical materials left behind during an operation and adverse drug events) and other events were more easily identified from the voluntary reports (for example, wrong site surgery) [12].

In 2007, all state governments agreed to include a 'condition-onset' marker with each recorded diagnosis, so that illnesses and injuries that existed before the patient entered hospital can be distinguished from illnesses acquired while in hospital. In July 2009, when a full year of data is available, such information will give health departments and hospital managers an overall picture of how many and what kinds of problems arise for patients in hospital. Over time, and as the basis for historical comparison grows, these data might be used on a monthly basis to give hospitals a current report on how they're going across all hospital-acquired diagnoses, not just selected indicators or sentinel events.

The condition-onset marker has been used in Victoria and Queensland for some time. The Commission has sponsored research using data with the condition-onset marker from these states to find out which hospital-acquired diagnoses have the greatest impact on hospital budgets. This work uses data from hospitals with sophisticated patient-costing systems to estimate the additional costs that can be attributed to various kinds of clinical incidents, once the treatment costs for the patient's underlying illness are taken into account. Knowing the additional costs that are due to clinical incidents may give funders of care increased motivation to invest in patient safety and quality programs.

Feedback for doctors and other health care workers

While some information has been collected for funders, hospitals and governments, relatively little work has been done to collect and feed back information on clinical outcomes to individual doctors and other healthcare workers. The data that is routinely collected from patients' medical records is not usually provided back to clinicians in formats they value, nor returned to them in the timely manner necessary for clinical improvement.

Surgeons have a long tradition of conducting 'surgical audits' in their hospitals with in-house discussions of how surgical outcomes could be improved. The Western Australian Audit of Surgical Mortality, for example, requires surgeons involved in the care of any public patient who dies in hospital to report a standard set of information on the case. Each report is then reviewed by a second surgeon to determine what, if any, steps could be taken to avoid future harms.

A number of the professional groups have developed or are developing registries of data on patient outcomes for specific treatments, e.g. cardiac surgery, or specific settings, e.g. intensive care units. These are used to provide feedback to clinicians to enable them to reflect on and improve their own practice, including the efficacy of treatments, medications and devices. One example is the National Joint Replacement Registry which has led to significant changes in how orthopaedic surgeons work and the results for patients.

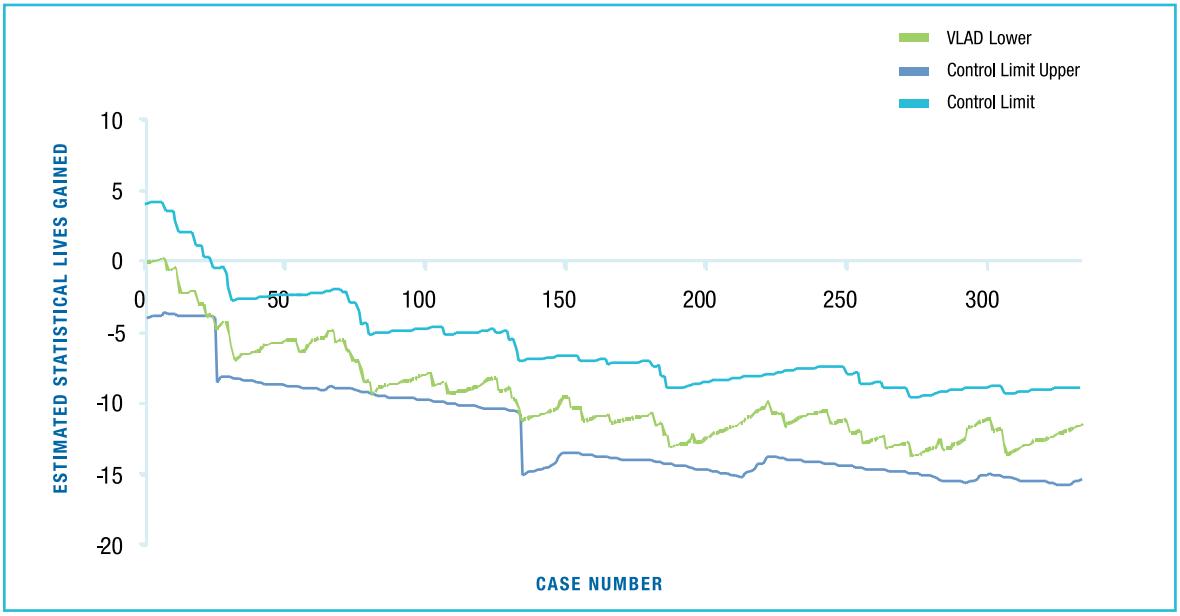
Feedback to hospitals

In addition to incident and sentinel event reporting, some states use the routine hospital data to report 'risk adjusted' patient safety and quality indicators. By statistically controlling for risks outside the control of the hospital (for example, pre-existing illnesses), such indicators give a fairer picture of comparative performance.

Queensland has begun using its routine hospital data to report back to hospitals on a monthly basis using Variable Life-Adjusted Displays (VLADs). The VLADs are a way of tracking outcomes, patient-by-patient and month-by-month and give hospitals a picture of how their outcomes are changing over time for specific operations or conditions. Figure 10.3 is an example of a VLAD. Queensland Health also sets 'control limits' on these reports that signal when a hospital's outcomes are seriously worse than expected outcomes and when these control limits are crossed, hospitals and area clinical governance units are required to investigate and report on causes [13].

Some hospitals use their own routine data to regularly report to the hospital board and/or quality committee on incidents in their hospital [14]. Research the Commission is sponsoring on the classification of adverse events using the condition-onset marker may provide a simpler way for such reports to be generated to target local problem areas.

Figure 10.3: Variable Life-Adjusted Displays – Acute Myocardial Infarction In-hospital Mortality (July 2003-October 2006) [15]



How and when will we know more?

Commonwealth, state and territory health departments are investing heavily in information technology for hospitals and other health care services. In most instances, this is focussed on improving the flow of information during an episode of care so that providers can have timely access to patient histories and test results. Increasingly, such systems are being recognised as sources of patient safety information. The Commission will continue to advocate to ensure that future information technology developments maximise this potential. The Commission has also developed an Information Strategy that aims to provide national leadership in the development, analysis and reporting of information that enhances the safety and quality of health care.

Some forms of technology (such as bar-coded patient wristbands) can be used to embed patient safety into care processes. But such technology entails costs, and funders and hospitals will want to understand which technologies represent best value for money. As mentioned above, the Commission has sponsored work to estimate the increased costs caused by various patient safety issues and to develop a simple model for calculating the cost-effectiveness of prevention activities. This will provide a means of evaluating proposed investments in quality improvement interventions and is due later in 2008.

Even without investment in new technology, much work remains to be done to allow us to learn all we can from available patient data. Operating and technical standards for clinical registries being developed and piloted by the Commission will smooth the path for new and existing clinically-driven data collection to be agile, efficient, secure and tightly linked to clinical improvement. Three states have already set up structures to allow linkage of routine hospital data beyond the single hospital episode. This would allow study of how often patients are re-admitted to hospital suffering the effects of a previous incident and allow hospitals to get information on what happens to patients who go back to a different hospital. When links can be made to data from general practice and from the Pharmaceutical Benefits Scheme and Medicare Benefits Scheme, this will provide an even better picture of the safety and quality of patient care.

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