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Safety Issues at Transitions of Care

**Consultation report on pain points relating to clinical
information systems**

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Purpose

This document presents a summary of the outcomes of consultations undertaken by the Australian Commission on Safety and Quality in Health Care (the Commission) on safety issues and 'pain points' relating to clinical information systems at transitions of care. It is accompanied by a summary of the literature.

The National Health Chief Information Officer Forum appointed the Commission to consult relevant experts and stakeholders to develop this report. The report will inform state and territory planning, and broader system planning for information transfer at transitions of care, when clinical information systems can support this. It focuses on information transfer relating to patients with chronic and complex conditions who often present to, and are treated in, the primary and acute care sectors.

This clinical safety report is intended to complement a review being done by the Australian Digital Health Agency about the interoperability of clinical systems.

Summary

This report describes the outcomes of consultations undertaken by the Commission on behalf of the National Health Chief Information Officer Forum (NHCIOF). The consultations aimed to identify safety issues and pain points related to clinical information systems at transitions of care between the primary and acute care sectors.

A literature review, targeted interviews and stakeholder workshops were conducted to identify key safety issues, pain points and opportunities for improvement. More than 80 participants from the medical, nursing, allied health, technical, management and health consumer sectors contributed to the project.

Collectively, the people who participated in the workshop and in the targeted interviews, as well as the consumer focus group are referred to as 'consultation participants' in this report.

Overview of general issues at transitions of care

Traditionally, primary care was provided predominantly by general practitioners, with whom patients had long term professional relationships. Hospital-based care was generally provided by honorary senior clinicians supported by small teams of junior clinicians. The model of communication and handover of care at transitions was for the general practitioner or senior clinicians to speak either directly or through an intermediary, such as a junior hospital clinician, to their counterpart in the receiving sector.

This of course reflects an outdated model of care. Consultation participants believe that the communication needs to be more team based and reflect the following:

- Care teams in the acute and primary care sectors are often large and diverse, especially for people with chronic and complex conditions
- The patient* is a member of the care team, and is at the centre of both care and communication
- Membership of care teams changes often and rapidly; the only constant team member might be the patient
- The primary healthcare team often has a more continuous and deeper relationship with the patient than the acute hospital care team, which provides episodic care as required
- High-quality communication within and between care teams (which include the patient) is central to the safety and quality of care
- Information-related clinical safety risks increase when new members join a team or the care team changes at a transition of care.

Consultation participants identified some elements of care that, in their view, help to ensure that care transitions are successful. They said good planning, implementation of care plans and good communication at transitions of care lower the risk of patient harm. Consultation discussions also focused on the risks associated with poor-quality communication when patients are discharged from acute hospitals, although consultation participants indicated that discharge is only one of several high-risk transition scenarios.

Consultation participants also identified several patient groups and care settings in which there is a higher risk of poor-quality transitions and outcomes.

* References to 'patients' include patients' carers, families and other support people.

It was suggested that workflow, information system and cultural differences can affect the effectiveness of communication between the primary care and acute hospital sectors. Consultation participants suggested inadequate or ineffective communication can lead to valuable information being overlooked at transitions of care.

Consultation participants agreed that concepts and terminology relating to referral, handover and discharge need to be clear and standardised.

Main safety issues at transitions of care

Consultation participants identified six safety issues as priorities that need to be addressed, and possible solutions.

Poorly defined models of person-centred care

Consultation participants attributed transition safety issues primarily to a lack of clarity about the team-based, person-centred model that applies in many health care settings. This can include a lack of clarity about who is a part of the team, what their roles are and what type of information they need. An episode of care now involves larger multidisciplinary teams with different roles that need to be more clearly defined. The model of care needs to be clarified, so that all of the team members, including the patient, receive and understand what needs to be communicated.

Poorly defined responsibility and accountability for communication at transitions of care

Consultation participants did not feel it is clear, in many cases, who is responsible for ensuring effective communication at transitions of care, or who is accountable when communication is not effective.

Consultation participants did not believe that all clinical leaders model or teach good communication at transitions of care.

Communication problems are often evident in hospitals, when patients might be cared for by multiple clinical teams at the same time. Discharge communication is often left to the most junior member of the team. This clinician might have had little direct responsibility for, or interaction with the patient, and might not understand the patient's and the follow-up clinician's needs. It is also difficult to tell who is accountable for effective communication on discharge.

Consultation participants suggested systems need to ensure all communications are fit for purpose. These systems will reflect models of person-centred, team-based care.

Consultation participants were concerned where processes to acknowledge handover of responsibility for clinical care (partial or complete) from one organisation or team to another are absent. Related to this is a safety concern when the results of investigations are not available before a patient is discharged. It can be unclear as to who or what organisation is responsible for following up these results. Errors made as a result of no follow-up can have clinical or medico-legal consequences.

Inadequate engagement of patients in care planning and communication

Consultation participants noted the importance of involving patients in all aspects of their care, and feel that inadequate engagement is a major safety and quality issue. Opportunities

to access key information are lost if patients are not engaged, as are opportunities to develop shared-care plans and identify any limits patients have regarding the scope of their care. Without such limits, there can be a risk of a patient receiving unwanted care.

Limited access to complete and current health and social information

Consultation participants noted that there are barriers to clinicians accessing aggregated and useful information about patients' health and social histories, and current status. This is despite some states and territories making good progress in this area.

Although each team member might need different information, the consultation participants believe that there are four main gaps in any information transfer:

1. Important information about patients' medical histories on admission to acute hospitals cannot be accessed

Hospitals often compensate for this lack of information by repeating patient assessments and investigations on admission. This practice leads to increased cost, delays and frustration on the part of patients and clinicians. Safety risks are increased when clinicians have incomplete medical histories, and when patients undergo unnecessary repeat investigations.

2. The quality of information in discharge summaries is variable

Consultation participants were concerned about missing, inconsistent, poorly presented and irrelevant information. If there are gaps in knowledge of the patient's health and social history on admission, these often remain throughout the hospital stay.

Primary clinicians reported they often receive long discharge summaries, some of which contain irrelevant information. They sometimes receive more than one discharge summary for this same patient and the same episode of care, which include inconsistent information. The problem is probably due to poor interoperability of information systems, but may also be due to the authors not knowing what information to include in the discharge summary.

3. The mode and effectiveness of information transmission are variable

Issues with the interoperability of systems and concerns about the security of information mean that much of the communication between hospitals and primary clinicians is still paper based. Primary care information systems can generate electronic referral letters, but, often, these cannot be readily integrated into acute hospital records. Consultation participants emphasised the need for secure communication systems to improve the efficiency and safety of communication across different organisations and sectors.

4. When discharge information is received, the timeliness is variable

Primary clinicians reported receiving some discharge information long after patient discharge, or not at all.

Limited opportunities for medication reconciliation

Poor medication reconciliation on discharge is a safety risk to patients. Both community pharmacists and general practitioners reported that patients present to them with no information on what medicine they should be taking or when they had last taken their medicine. Clinicians also reported that patient-held medication summaries and the medication summaries prepared by hospital pharmacists are often different.

General practitioners said they are frustrated when discharge summaries do not include information about medicines changed during a hospital admission and why. This means the

general practitioners are not sure if a medicine is accidentally omitted in the discharge summary or if the medicines have been deliberately altered.

Inadequate discharge planning

Consultation participants emphasised the need for discharge planning to be a continuous process. Good discharge planning starts on admission, and contains thorough information about the patient’s social and health history, and current situation. Consultation participants described situations in which the care team did not identify a patient’s health and social needs on discharge. On the other hand, when these needs were identified, there were no arrangements made to meet them.

Opportunities for improvement

Consultation participants identified several areas that can be improved for professional practices and opportunities to make use of electronic systems.

There was very strong support for working more closely with patients when planning discharge and in communicating information about what discharge will involve. Consumer engagement was seen as a key factor to ensure transparency, accountability and good-quality transitions of care. Consumer engagement can improve clinicians’ knowledge and their compliance with professional practice standards at transitions of care.

Consultation participants also supported making electronic clinical information systems more secure and compatible across acute and primary care, between all states and territories, and across the public and private hospital sectors. This work is ongoing in some states and territories.

Consultation participants also supported developments to enable clinicians to access:

- Patient data held in different clinical information systems across sectors, and states and territories
- A reliable national clinician database to support referral and provision of discharge and transfer of care information.

Table 1 outlines areas for improvement, aligned with the six safety issues.

Table 1: Potential areas for improvement

Safety issue	Areas for improvement
Poorly defined models of person-centred care	<ul style="list-style-type: none"> • Define an updated model of person-centred, team-based care and communication • Enable an understanding about why information is being communicated between care teams and clinicians at transition points
Poorly defined responsibility and accountability for communication at transitions of care	<ul style="list-style-type: none"> • Define the roles and responsibilities of the clinicians involved in transitions of care • Define who is accountable for the communication at transition points
Inadequate engagement of patients in care planning and communication	<ul style="list-style-type: none"> • Improve the engagement of patients in both hospital and primary care settings
Limited access to complete and current health and social information	<ul style="list-style-type: none"> • Improve the compatibility of electronic information systems so it is easier for clinicians to have access to patient data and communicate during transitions of care

Safety issue	Areas for improvement
Limited opportunities for medication reconciliation	<ul style="list-style-type: none"> ● Allow clinician access to patient data across different clinical information systems ● Secure communication systems ● Improve access to the My Health Record system ● Allow access to a reliable national clinician database
Inadequate discharge planning	<ul style="list-style-type: none"> ● Define the roles of the clinicians who are responsible for communications on discharge ● Define who is accountable for the communications on discharge ● Improve the compatibility of information systems, so that all relevant information is easy to access and can be included in hospital discharge planning

Introduction

Between July and October 2017, the Australian Commission on Safety and Quality in Health Care (the Commission) undertook a project on the interoperability and safety issues relating to clinical information systems at transitions of care. This project was conducted on behalf of the National Health Chief Information Officer Forum (NHCIOF).

The project aimed to identify safety issues and pain points affecting clinical care at the transition points between primary care and acute hospitals. These issues were reported and prioritised by clinicians.

The Commission worked with Clayton Utz to:

- Perform a high-level review of the literature (as a separate document)
- Write a discussion paper to support stakeholder consultation
- Consult with stakeholders through targeted interviews and workshops
- Identify safety issues and pain points relating to clinical information systems at transitions of care
- Identify areas for improvement.

Dr Heather Wellington (Clayton Utz) facilitated the consultations. Twenty stakeholders participated in 18 targeted interviews, providing different perspectives. More than 60 stakeholders attended a series of workshops. Stakeholders were engaged from across the public and private sectors, and included:

- Clinicians from general practice (including academics), community and hospital pharmacy, nursing, emergency medicine, paediatrics, pathology, radiology and surgery
- Clinical information system managers
- Representatives from aged care, medical indemnity insurance, primary health care organisations and ambulance service providers

Workshops were conducted in Melbourne on 24 August 2017, Brisbane on 30 August 2017 and Perth on 1 September 2017. A fourth workshop, to review and validate the findings, was held in Sydney on 26 September 2017.

Seven consumers who were experienced in consumer consultations also participated in a focus group on 3 October 2017.

Definitions

Table 2 presents the definitions used for this project.

Table 2: Definitions

Term	Definition
Acute hospital	A public or private organisation providing medical or surgical bed-based and ambulatory treatment, and nursing care for sick or injured people, and classified as such by a state or territory authority
Adverse event	An injury resulting from medical management rather than the underlying disease
Consultation participants	Collectively, the people who participated in the workshop and in the targeted interviews, as well as the consumer focus group
Safety issues	Issues with the provision of health care that could lead to harm, damage or loss to consumers

Term	Definition
Pain points	Potential or actual issues with the provision of health care that are challenging to deal with
Patients	Include patients' carers, families and other support people
Primary care	The first layer of services encountered in health care ¹
Primary care – acute hospital interface	The point in the continuum of care during which responsibility (partial or full) for a patient's care transitions from a primary clinician or team to an acute hospital clinician or team, or vice versa
Transitions of care	Movements, physical or virtual, of patients between clinicians, teams or settings as their condition and care needs change ²

Scope of consultations

The consultation discussion focused on safety issues that:

- Occur when patients are
 - admitted to acute hospitals from primary care settings
 - discharged from acute hospitals to primary care settings
- Are associated with, or may result in, adverse patient outcomes at the primary care – acute hospital interface
- Are caused by poor-quality information or an inadequate information system, or could be mitigated by improving the information system.

However, many consultation participants emphasised that the issues they identified relate to transitions at any point in the continuum of care. This includes the many transition points within acute hospitals and within primary care settings, and on admission to, and on discharge from, acute hospitals.

Background

The Australian population is ageing. Many people, especially those who are living with chronic and complex conditions, receive care from multiple clinicians and organisations. Changes in technology, policy and consumer expectations mean that more care is delivered in community settings. The number of people living with chronic and complex conditions is also increasing.

The number of days of patient care in hospitals per 1,000 population decreased by, on average, 0.7% per year between 2004–05 and 2013–14. However, the number of hospitalisations increased across the same period, with the highest annual average increase for people aged 85 and over, followed by people aged 65–84.

There were about 9.7 million hospitalisations in Australia in 2013–14, each associated with transitions into and out of the acute hospital sector.³ Many of these transitions were across the primary care – acute hospital interface.

A transition of care across the primary care – acute hospital interface should be well planned, well timed and well executed. However, transitions of care are not always smooth. Negative patient outcomes associated with transitions across care boundaries can arise from transfer of care and discharge from hospital. This has been described as ‘a dangerous time for patients’.⁴ The literature also describes poor-quality transitions associated with patients transitioning from primary care or aged care, but there is little information about patient outcomes as a result of these transitions.⁵

Prospective cohort studies suggest that at least 20% of patients discharged from hospital to the home experience an adverse event within three weeks of discharge. An estimated two-thirds of these are adverse drug events. Many of these could have been avoided or mitigated.⁶

One prospective study showed that, on discharge, about 14% of older patients have one or more queries about the medicines they should be taking. Of these, 14% of patients will need to be readmitted within 30 days (versus 6% of the patients who did not have any queries about their medicines).⁷ Around half of hospital medication errors occur on admission, during transfer and on discharge, and around 30% of these have the potential to cause patient harm.⁸

Another prospective cross-sectional study of 2,644 patient discharges found that 40% of the patients had pending test results at the time of discharge, and 10% of these needed to be acted on. However, the clinician responsible for the patient’s ongoing care and the patient themselves did not know about the results.⁹

Improving the transition of patients across care boundaries, therefore, presents a good opportunity to improve patient safety.

From a patient perspective, these gaps in the transitions across the boundaries of care is experienced in several ways. Patients report them as ‘falling through gaps’, ‘being forgotten about’ or ‘having to explain yourself to every professional or service you encounter’.¹⁰ Patient experience surveys highlight how patients view these movements across the boundaries of care.^{11,12,13}

Many transition pain points are associated with poor communication and information sharing between clinicians and organisations, which is a recurring theme in studies describing reasons for breaks in care across services.¹⁴

Relationship between quality of transitions and patient safety

Independent of this project, the Commission engaged Deakin University to conduct a rapid literature review on improving the documentation at transitions of care for patients with complex healthcare needs¹⁵. This review was used to develop a better understanding of what information should be available to clinicians at transitions of care, and focused on evidence about the:

- Safety and quality issues related to poor documentation for complex patients at the transition of care
- Minimum information that needs to be recorded to support safe transitions of care
- Form or structure of the documentation required at different transitions of care.

The Deakin University literature review found strong evidence that poor documentation at transitions of care is a key safety and quality issue for patients with complex healthcare needs and can lead to adverse events, including:

- Higher rates of readmission to hospital
- Failure to follow up after hospital discharge
- Increased costs related to inadequate or reduced care coordination
- Lack of availability of important diagnostic results
- Medication errors, including missed medicines, dose errors, and emergency medicines being missed or stopped accidentally.

Consultation concepts

Consultation participants discussed several general concepts and issues identified at the transitions of care, which are discussed in this chapter.

Primary care – acute hospital interface

There are many pathways between the primary care and acute hospital sectors in Australia, some of which are complex (see Figure 1). Patients may:

- Have no regular pre-admission primary clinician, or have multiple regular pre-admission primary clinicians
- Self-refer to acute hospitals, or be referred by a primary or secondary care clinician, such as a specialist
- Be admitted to a hospital through the ambulance service, the emergency department or the outpatient department, or be admitted directly to the care of an inpatient team
- Be treated by a private specialist or sub-acute care clinician after being discharged from hospital, before or at the same time as re-entering the primary care system.

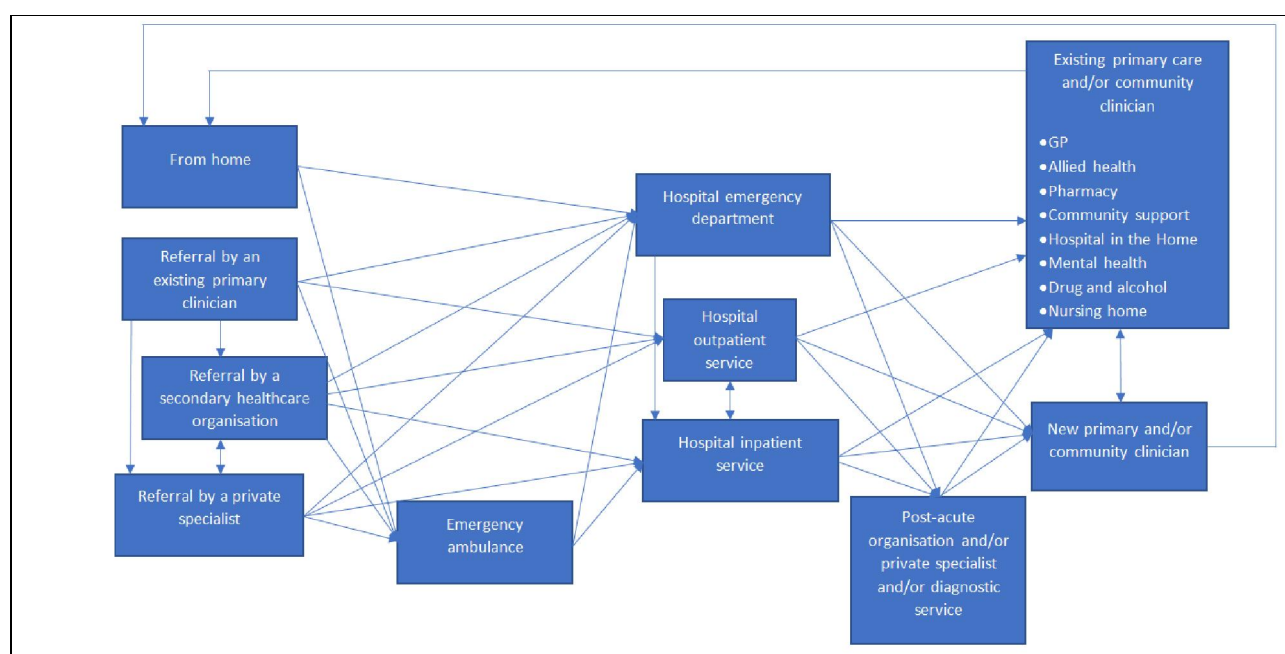
The Australian healthcare system has been described as ‘a multifaceted web of public and private providers, settings, participants and supporting mechanisms’.¹⁶ Consultation participants highlighted particular features of the healthcare system that increase clinical safety risks at transitions of care. These areas also represent opportunities that can be improved to better the care and communication processes.

Consultation participants strongly emphasised the:

- Repeated transitions that occur in some patient pathways, with patients going back and forth between the primary care and acute hospital sectors
- Risk of poor communication and resulting safety issues each time a transition occurs.

Figure 1 shows some potential pathways for discharge from acute hospitals to primary care settings. A similar set of pathways apply to admission from primary care to acute hospital settings.

Figure 1: Pathways between primary and acute sectors



Consultation participants were concerned about the quality of transitions in all pathways. However, they suggested that patients entering or leaving acute hospitals through the emergency department may be at a higher risk of poor-quality transitions. This is because the emergency department is fast paced, and clinicians have less time to gather and follow up information. Often, there is no formal referral into the emergency department or handover of care by a primary clinician – many patients present directly. Consultation participants also described gaps in assessment and communication of information, and fragmented workforce arrangements.

Elements of effective transitions of care

Consultation participants identified the key elements of high-quality management of patients each time they transition between a primary care and acute hospital setting. Figure 2 represents consultation participants' views of high-quality transitions of care on discharge from an acute hospital. A similar model could be developed to reflect the transition into an acute hospital from a primary care setting.

Figure 2: Effective transitions from acute hospital to primary care settings

Ongoing primary care			
	Hospital responsibilities		Community provider responsibilities
	Acute hospital care	At transition	
High-quality care	Provide high-quality acute hospital care including comprehensive planning for transition back to primary care	Provide high-quality care at transition including: <ul style="list-style-type: none"> • Reconciling medicines OR making reliable arrangements with primary care team • Arranging early follow-up investigations, appointments and services OR making reliable arrangements with primary care team • Follow-up outstanding investigations OR making reliable arrangements with primary care team 	Provide high quality ongoing primary care including: <ul style="list-style-type: none"> • Ensuring medicines are reconciled at transition • Supporting patient to comply with follow-up arrangements (e.g. outpatient appointments) • Making follow-up arrangements as agreed with inpatient team • Follow-up outstanding investigations as agreed with inpatient team
High-quality information/communication/engagement	At admission, review referral information from primary care team Document a high-quality record of inpatient care Document a high-quality transition plan	Confirm and document transition arrangements with primary care team Document high-quality summary/ies of inpatient care and provide promptly to primary care team/s	Review information about inpatient and transition care Document ongoing primary care Provide high quality new referral communications as needed
	Engage with primary care clinicians at key points		Engage with hospital clinicians at key points
	Engage with patient/carers across the continuum		

The various elements of high-quality transitions of care can be categorised as planning, implementation, documentation and communication.

Consultation participants emphasised that:

- The elements of high-quality transitions of care are similar, regardless of whether they occur at the primary care – acute hospital interface or another, including within acute hospitals
- Communication breakdowns can have cumulative effects – for example, suboptimal communication on admission to hospital can have a cumulative effect on patient safety throughout the hospital admission and following discharge back to primary care
- Communication between primary and acute hospital care teams should be tailored to patient circumstances
- Communication should not be considered as necessary only on admission and on discharge.

Consultation participants confirmed that high-quality transition processes need to be used each time a patient moves between settings or care teams. This can be a physical move or a virtual move on a computer information system.

The two main differences between in-hospital transitions, and transitions between acute hospital and primary care teams are that within hospitals:

- Clinicians have direct access to the hospital healthcare record
- Management and governance arrangements are likely to be consistent.

Consultation participants noted that modern health care should be person centred and team based in all healthcare settings. Members of patient care teams change, depending on the needs of the patient. Acute clinicians may move in and out of the care team depending on the patient's needs and other circumstances. Often, the acute hospital care team is only engaged with the patient during a single transition or during a single episode of care.

However, some primary clinicians, including general practitioners, may be ongoing members of a patient's care team. They often know patients well, and can provide valuable contextual information that can improve the safety and quality of care provided in the acute hospital setting. This information may be useful during the transitions of care and during complex episodes of hospital care. However, consultation participants said that cultural differences could influence the quality of the communication between the primary care and acute hospital sectors.

Consultation participants suggested that many clinicians working in acute hospitals do not fully understand the close relationship that develops between some primary clinicians and their patients. Important information held by primary clinicians, therefore, is often not considered on admission or in preparation for discharge. This can lead to patient safety issues.

Consultation participants suggested that the concept of a 'person-centred medical home'¹⁷ is likely to play an increasingly important role in communication at transitions of care.

Consultation participant views were consistent with the findings from the Deakin University literature review (see 'Background'). Consultation participants described many issues with planning, documentation, implementation and communication at transitions of care, and these issues increase the risk of adverse outcomes for patients. Some of the harm that occurs at transitions of care is not measured or reported, and some has lasting effects for patients. Reported issues resulting from poor transition management include:

- Medication error
- Misdiagnosis or missed diagnosis due to failure to follow-up investigations
- Lack of necessary support services in the community environment
- Failure to follow up by appropriate clinicians
- Duplicated investigations
- Inappropriate treatment at end of life.

Some of the lasting effects were patient inconvenience and readmission; patient, family and carer stress; and severe disability and death.

Terminology and shared meanings

Consultation participants suggested that there is confusion about the reason for communication during transitions of care and the meaning of some terms used. They emphasised the importance of:

- Clarity about the purpose of communication between the acute hospital and primary care sectors

- Clear, shared meanings of terms commonly used regarding transitions of care.

It was suggested that the terms 'referral', 'handover' and 'discharge' are often used interchangeably. The discharge summary is often incorrectly considered to be the only tool that can prompt a referral or handover on discharge. Most consultation participants agreed on the following definitions.

Discharge from an acute hospital is the process of concluding an episode of inpatient care rather than an action that occurs at a single point in time.

A **referral** is the process of requesting the involvement of another clinician in the care of a patient. This request may be:

- For limited review and advice
- For more thorough review and involvement in the care of the patient
- To takeover responsibility for the overall care of the patient (that is, handover).

Handover is the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another clinician or professional group. Handover can be temporary or permanent.¹⁸

The **discharge summary** is one tool to communicate the patient's relevant recent history, current health status and ongoing care plan to different clinicians, as well as to the patient and their carers. It may include referrals to other clinicians for professional advice or to provide specific care. It may also effect a handover of care.

Higher risk patient groups

Consultation participants noted that the following groups of patients are at higher risk of failed transition of care on hospital discharge, which can lead to adverse patient outcomes:

- People with chronic and complex conditions
- People with serious mental illness
- People with dementia or other forms of cognitive impairment
- Aboriginal and Torres Strait Islander people
- People who live in rural and remote areas
- People who are homeless
- People with no regular general practitioner
- People who use English as a second language
- People with identifiable diseases – for example, pertussis
- People who are in and out of hospital often
- Young people who are developing personal autonomy about their health care, and whose care may be simultaneously transitioning from specialist children's hospitals to adult hospitals.

Consumers stated that higher risk patient groups can face extra human rights and equity issues during transitions of care. These higher risk patient groups heavily rely on clinicians engaging with them to plan, implement, document and communicate, to a high standard, the:

- Care the clinician provided during the episode of care
- Plans and specific arrangements for transition of care to the next clinician or team that will assume primary responsibility for ongoing care.

It was noted, however, that even patients who are considered to have low risk of adverse events at transitions of care may be high risk in certain situations.

Safety issues and pain points

Consultation participants identified safety issues that impede effective transitions of care identified in Table 1.

The following, potentially serious, safety issues were considered to happen most often:

- Poorly defined models of person-centred care
- Poorly defined responsibility and accountability for communication at transitions of care
- Inadequate engagement of patients in care planning and communication
- Limited access to complete and current health and social information
- Limited opportunities for medication reconciliation
- Inadequate discharge planning
- Other pain points.

Consultation participants suggested that the healthcare system compensates for these safety issues with workarounds. Workarounds mostly protect patient safety, but create duplication, inefficiency and increased cost.

Poorly defined models of person-centred care

Consultation participants noted that models of care are not well defined in acute hospital or in primary care settings, which leads to a lack of understanding about how care teams operate. This results in confusion about the purpose of communication between care teams.

Traditionally, primary care was provided mostly by general practitioners, with whom patients had long term professional relationships. Hospital-based care was generally provided by honorary senior clinicians supported by small teams of junior clinicians. The communication and handover of care at transitions typically involved the general practitioner or senior clinicians speaking to their counterpart in the receiving sector. The communication could be direct, or through an intermediary such as a junior hospital clinician.

These were traditional models of care and discharge and are not current. Care is now more diverse and has the following characteristics:

1. In the community, patients are often cared for by large teams of diverse clinicians located in different settings

The teams also work under different management and governance arrangements, including within corporate medical or health groups. This is especially the case for patients with chronic and complex conditions. The concept of 'my general practitioner' has changed to 'my healthcare team' or 'my general practice'.

2. In acute hospitals, patients are often cared for by multiple clinical teams

Management changes and specialisation in hospitals have led to much larger, more diverse and, often, multiple teams of clinicians. There is more frequent rotation of clinicians in and out of patient care teams. Clinicians' working hours are significantly shorter than in the past.

3. Patients have deeper relationships with their primary healthcare team

The primary healthcare team often has a more continuous and deeper relationship with the patient than the acute hospital care team, which provides episodes of care, as required.

4. High-quality communication within and between care teams is central to the safety and quality of care

Handover of information from a member of the primary healthcare team to a member of the acute healthcare team, and vice versa, rarely provides all the information needs of team members, including the patient. This type of information handover is often linear (that is, from one person to another) and occurs at a single point in time.

To ensure safe, high-quality care, all team members, including the patient, need easy access to information about the patient's health history and current status, especially when there is a transition of care from one team to another. This information should be structured, accurate and complete.

5. Membership of care teams changes often and rapidly

Safety risks that are related to information (or lack of) increase when new members join a care team, or the care team changes at a transition of care. These information-related safety risks increase on admission to, and discharge from, hospital. These transition points are when team members need access to enough information to know what happened in the preceding period, why it happened and what the plans are for the ongoing care of the patient.

6. Shorter and more varied working hours in both the primary care and acute hospital sectors mean that clinicians need to rely on third parties and technology to communicate

Participants noted that referrals and handovers of care from primary clinicians to hospitals, and vice versa, are increasingly between entities rather than individual clinicians. There is often no confirmation of receipt of referral or acceptance of a handover of care. There is a risk that patients will 'fall through the cracks'.

Consultation participants noted that the only constant team member is the patient, who is (or should be) at the centre of both care and communication.

Consultation participants discussed the make up of the hospital-based team, and whether the general practitioner should be formally recognised as a member of that team. If so, the general practitioner would be engaged in decision-making throughout the hospital admission period. It was noted that, in rural Australia, many general practitioners continue to provide high levels of continuity of care. They also generally have stronger relationships with the inpatient care teams in the metropolitan areas of Australia.

Poorly defined responsibility and accountability for communication at transitions of care

Consultation participants suggested that healthcare team members are not aware of who is responsible or accountable for good communication between teams at transitions of care. This includes the responsibility for the quality of documentation and communication at transitions of care. They suggested that this is because health care is usually delivered by teams. However, there are few procedures in place for reviewing and ensuring accountability for performance.

Consultation participants suggested that this lack of responsibility and accountability is the underlying cause of poor communication at transitions of care. It is associated with adverse events.

Pathology providers reported that a lack of follow up of test results was a large concern and a known patient safety risk (see Case study 1). General practitioners reported that very important handover messages, such as 'please follow up the pathology on the biopsy

performed on this patient', were 'lost' in the middle of lengthy discharge summaries. General practitioners are concerned about patient safety and medico-legal outcomes when messages such as these are missed because they are presented poorly. This is especially true when there are no systems to confirm that important instructions are received and accepted. Other primary clinicians said that the discharge communications they receive do not explain what they are meant to do during the early stages of patient follow up.

Case study 1: 'Systematic failures'

A lack of clear responsibility and accountability at transitions of care is reported to have led to an increased patient safety risk in one hospital. Blood tests results were uploaded into an electronic healthcare record system with a red flag indicating an abnormal result. This signalled the patient could not metabolise the medicine prescribed (6-Mercaptopurine) in hospital for Crohn's colitis. However, the patient had been discharged and continued to take the medicine. Due to 'systemic failures', clinicians were not aware of the results. The patient later died. The Coroner blamed over-reliance on the electronic healthcare record, and said that communication between clinicians and rotating shifts contributed to the 'preventable' tragedy.¹⁹

Consultation participants repeatedly raised the concept of duty of care regarding transition processes, including:

- Identifying the appropriate recipient(s) of information
- Assessing the capability of the proposed recipient of the handover to implement the care plan
- Ensuring critical communications have been received and understood.

Generally, participants suggested that standards for communication – including for handover of care – are well established. However, it is not clear who is accountable to ensure standards are adhered to. It was noted that the Australian Medical Association published *10 Minimum Standards for Communication between Health Services and General Practitioners and other Treating Doctors* in June 2017.²⁰ The Commission has also published the *National Guidelines for On-Screen Presentation of Discharge Summaries*, and other guides and toolkits to support clinical handover.

Inadequate engagement of patients in care planning and communication

Consultation participants acknowledged that, in a true person-centred system, patients would be well informed, and fully involved in decision-making. Patients' circumstances and preferences would be considered, and their wishes respected. Patients would likely be highly protective of their personal safety. A fully involved patient would know when the care they are receiving does match the agreed care plan, or if there were mistakes. Patients can therefore play a key role in communication at transitions of care.

It was suggested that, in the current Australian healthcare system, the only person with comprehensive knowledge of the patient's condition and circumstances is likely to be the patient themselves. Consumers highlighted the problems they face to become respected members of the patient care team in shared-care models. Patients continue to be frustrated about the lack of true person-centred models in many healthcare settings. This is despite published information and tools about person-centred care.

It was noted that people with cognitive impairment associated with dementia and other conditions can be difficult to involve, and carers may need to help make decisions about their care.

Consultation participants discussed the low levels of health literacy on average in Australia, and the need for resources to help people with language or cognitive difficulties. It was suggested that both clinicians and patients could be better at engaging with each other.

Limited access to complete and current health and social information

All consultations emphasised how important it is for all members of the patient's care team, including the patient, to have easy access to information about the patient's health and social history, and current circumstances. This information may be held in different systems, and may be needed across the patient journey, not only at transitions of care.

Consultation participants felt that, generally, it is easiest to collect and integrate information held by the public sector at the state or territory level. It becomes more difficult to collect and intergrade data when:

- It is not electronic
- Clinical information systems are not interoperable
- Datasets are controlled by different organisations in the public and private sectors, or by different states or territories.

Consultation participants mostly discussed issues of communication and handover from acute hospitals to primary care providers on discharge from hospital. Clinicians rely heavily on the discharge summary to communicate details about the patient's care during this stage of care. However, the discharge summary no longer provides information from just one person or small team to a general practitioner. It is now used to communicate clinical information with many potential readers who need the information for different reasons. Those reasons need to be defined so the discharge communication is tailored accordingly.

For example, in rural settings, general practitioners often care for their patients across both hospital and community settings. In metropolitan settings, however, general practitioners rarely have rights to provide inpatient care. Their relationships with metropolitan patients can be halted when that patient is treated at a hospital. As a consequence, primary clinicians rely on discharge information much more than their rural counterparts. In all settings, different primary clinicians may need access to information about:

- What happened to the patient while they were in hospital
- Why certain decisions about their health care were made
- What their ongoing care needs are.

As mentioned in the section on 'Poorly defined models of person-centred care', models of care need to be better defined. This would help ensure that all communications between different care teams and clinicians are fit for purpose, whether they occur on admission, on discharge or elsewhere in the patient journey.

Many consultation participants felt that discharge summaries have limited use because they are outdated, situation specific and time limited. It was suggested that, rather than a single communication at each transition of care, a generic summary of all the relevant information that is available could be prepared. Consultation participants strongly supported the idea of having communication tools specific for transitions of care. Content for these tools would be configured according to how the receiving clinician wants to view it. This should be implemented by using a well-organised and searchable healthcare record. The levels of information that can be accessed would depend on who is reading it.

Some consultation participants suggested a discharge plan should be used when patients are discharged from an acute hospital, together with communication that clearly describes what decisions have been made and why. These will help transition the responsibility for

ongoing patient care to defined members of the receiving care team, who can then access information in line with the model described above.

Some consultation participants suggested that a cultural divide exists between primary health care and hospitals. This is evidenced by the:

- Under-recognition of the value of information provided by primary clinicians to hospitals
- Poor understanding of what information primary clinicians need when they take over the care of patients following their discharge from hospital.

The hospital-based general practitioner liaison officer could be valuable in helping hospital clinicians understand the role and contribution of general practitioners. However, these positions were described as significantly under-resourced and 'under threat'.

Issues relating to interoperability and data access were reported as worse when the patient information that needs to cross state and territory boundaries. For example, patients who live in New South Wales but receive care in the Australian Capital Territory.

Consultation participants stated that hospital-based teams cannot access information held by primary clinicians. Doing so may help hospitals to provide high-quality hospital care and discharge planning.

Primary clinicians reported uncertainty as to whether a referral to a hospital has been lost, or if the waiting time is just very long. General practitioners reported referring patients to hospital services, receiving an acknowledgement of receipt of the referral and then hearing nothing further for extended periods. They suggested that if they had direct access to information about expected waiting times, they would not be concerned, provided that waiting times remained within clinically acceptable parameters.

Referrals themselves can be problematic. Referral letters from primary clinicians often cannot be integrated into hospital records because the systems do not work together, resulting in a loss of valuable information. Some primary clinicians do not write suitable referral letters. In some states and territories, referrals will not be accepted unless they meet a certain standard.

Issues with the quality of information accessed/recorded across the continuum from admission to discharge

Consultation participants stated that the quality of information about a patient can be very poor. Reasons for this include:

- Hospital-based clinicians not realising the importance of the referral information provided by primary clinicians
- An inability to incorporate referral information in the hospital healthcare record, because of system interoperability issues
- Poorly recorded information about the social determinants of health
- Poorly recorded information about the patient's diagnosis, current condition, care provided while in the hospital, leading to incorrect or incomplete information in summary documents prepared on discharge.

Issues with the presentation of information

Consultation participants discussed how referral and handover information was often presented in different ways on admission to hospital. Standardised approaches could be very useful so that all information is shown in the same way. Some acute hospitals do not

accept non-emergency referrals unless they contain specific information and in a specific format.

Consultation participants discussed the *National Guidelines for On-Screen Presentation of Discharge Summaries*, published by the Commission in 2016. In practice, the presentation of discharge summaries varies widely. This may be because:

- Clinical information systems across different states and territories have different capabilities
- Of interoperability issues between clinical systems used in the acute hospital and primary care sectors.

Issues with the content of discharge summaries

Most discussion centred on the content of hospital discharge summaries, and clinician experiences. Consultation participants noted the following problems about the information in discharge summaries:

1. Relevance of discharge information

Although some primary clinicians reported that the content of electronically generated discharge summaries is improving, others reported receiving increasingly lengthy 'summaries' containing large amounts of irrelevant information.

2. Consistency of discharge information

Some consultation participants reported receiving inconsistent information. For example, community pharmacists receive information from hospital pharmacists about patients' medicines on discharge, but this is inconsistent with the information provided by junior clinicians within discharge summaries.

3. Reliability of discharge information

Some primary clinicians reported receiving discharge summaries headed by a disclaimer of the following type: 'Please note that the author of this summary was not involved in the care of this patient'. It was suggested that, in some hospitals, 'spare' junior clinicians are responsible for summarising the care of patients they have never met, relying on the information in the inpatient healthcare record. Consultation participants questioned the reliability of such summaries. Others reported that, as a result of changes to hospital rostering and workforce practices, junior clinicians may not be involved in important aspects of care such as helping at surgical procedures. Therefore, junior clinicians may have limited knowledge of what happened to the patient while in hospital. This lack of knowledge can make the information in the discharge summary less reliable.

4. Duplication of discharge information

Some clinicians described receiving multiple discharge communications from nursing, medical and allied clinicians relating to a single admission. This information is of variable quality. A primary clinician may receive up to seven documents relating to a single admission, some of which are changed drafts of earlier versions. There is a similar issue with investigation results that are reviewed and amended, resulting in multiple reports being issued. Primary clinicians find it very difficult to assess this information, and to ascertain what is the most current and reliable information.

5. Limitation of sensitive information

Some consultation participants, including consumers, reported that clinicians limit the information they include in communications to other clinicians. This is because some clinicians are concerned about what sensitive information they are legally permitted to share without explicit patient approval. This can lead to important gaps in communication.

6. Security of sensitive information

Some consultation participants, including consumers, raised concerns about the governance and privacy of sensitive information held in clinical information systems.

7. Quality of discharge information

Some private hospitals do not provide discharge summaries. Rather, the treating specialist is responsible for communicating with general practitioners on discharge. The quality of such communications varies.

Consultation participants were familiar with the ISBAR (Identify, Situation, Background, Assessment and Recommendation) approach to handover of care. They did not know why the ISBAR approach is not applied routinely to communications between primary health and acute hospital teams. It was suggested that the issue may stem from some clinicians not viewing the discharge summary as a handover tool. There was also concern about the appropriateness of junior clinicians preparing discharge summaries. Junior clinicians may have been trained in the specifics of handover, and may not hold accountability for the quality of information. Consultation participants strongly felt that junior clinicians are the least qualified people to prepare a discharge summary.

Some consultation participants suggested that hospitals prepare discharge summaries for administrative purposes, such as to meet coding and reporting requirements. This can lead to information being included that is not needed by, or useful to, primary clinicians.

Issues with the mode of communications

A great deal of communication between hospitals and primary clinicians remains paper based. Some of this is due to limited interoperability between information systems. There is reliance on facsimile (fax) transmission, traditional postal services and patient-held summaries. These are all assumed to be more secure than electronic communication, except where secure communication systems are used. Secure electronic communication is not uniformly available across the Australian healthcare system.

However, many participants pointed out that facsimiles are often distributed within primary health practices via email, and that there is potential for generation of multiple uncontrolled copies of both emailed and printed copies. Further, postal delivery is often delayed, and patients do not always remember to bring their discharge summaries with them to post-admission consultations.

Consumers affirmed, however, the value of patient-held discharge summaries, as they allow the patient to control what information is passed, and to whom.

Issues with the timeliness of communications

Primary clinicians reported receiving some discharge summaries weeks after their patients were discharged from hospital, or not at all. Other participants reported that hospitals often have difficulty identifying patients' usual primary clinicians, especially when they attend a corporate practice in which a patient will see different providers on different visits. In addition, some clinicians work in and across different corporate practices, and it was suggested that there is often confusion about where to send discharge summaries. Importantly, those consulted were clear in their view that there is no single source of reliable information about where clinicians practise in Australia.

There was strong support for automated notifications to be provided to primary clinicians when their patients undergo important transitions of care such as admission to and discharge from hospital.

Finally, it was noted that hospital outpatient departments can be very slow to send out information. The communication quality often depends on the seniority of the author and their direct knowledge of the patient.

Issues with lack of acknowledgement of handover of care

It was noted that many communications between hospitals and primary clinicians contain requests to:

- Follow-up investigations
- Assume responsibility for arranging immediate services
- Assume responsibility for ongoing patient care.

However, there is often no mechanism for the requesting clinician to receive confirmation that the request has been received and accepted. It is known that some requests are never received or never acted on. This could result in potentially serious patient safety risks.

Limited opportunities for medication reconciliation

Consultation participants believed that inadequate medication reconciliation is a major patient safety risk at the primary care – acute hospital interface. They reported witnessing patient, family and carer confusion about what medicines were stopped, changed or continued while they were in the hospital.

Community pharmacists described patients ‘turning up’ at community pharmacies a few hours after discharge with inadequate medication information. Patients were unsure if they had received that day’s medicine or medicines. In some cases, missing or duplicating medicines can be very dangerous. Community pharmacists said they spend too much time trying to contact hospital clinicians to work out which medicines patients are meant to be taking, and whether they needed a dose immediately.

Community pharmacists also reported differences between the medicines list in patient-held discharge summaries, and the medication summaries presented in hospital discharge summaries.

Consultation participants generally agreed that the model of having pharmacists on inpatient care teams and using them to manage the medication reconciliation on discharge has worked well. However, this service is not available in all organisations. One participant suggested an alternative model, in which community pharmacists reconcile medicines immediately post-discharge. However, current MBS arrangements do not appear to support such work.

Some consultation participants noted that the importance of medicines which have long-term consequences for patient health and safety, but which clinicians are unaware of because they cannot easily access comprehensive healthcare records. One example cited was patients who had hormone therapy or cancer chemotherapy as children, with potentially long-term effects.

It was also noted that it is very difficult to support the safe transition of patients across settings, and between states and territories, when they are on approved Schedule 8 medicines. An example cited was that of patients with drug dependencies moving from hospitals to prisons, and undergoing uncontrolled drug withdrawal because they could not arrange the relevant prescription on discharge.

Inadequate discharge planning

Consultation participants discussed their concerns about the quality of discharge planning in many acute hospitals. They emphasised that discharge planning needs to be based on a thorough understanding of the patient's social and community circumstances. Discharge planning needs to start on admission, be led by senior clinicians and be a continuous process across the entire hospital admission.

Consultation participants reported that poor quality planning often leads to poor patient outcomes. For example, some patients are discharged:

- At inappropriate times
- Without proper support
- Without access to necessary medicines
- Without enough follow-up arrangements in place.

The safety issue presented here is that patient health and social needs after discharge are often not considered or, if they are considered, appropriate arrangements are not made to meet them.

Participants identified the main problem in good discharge planning as the lack of engagement with primary clinicians. Primary clinicians typically know patients and their social circumstances very well, and can help to provide appropriate care after discharge.

Other safety issues – pain points

Consultation participants highlighted other safety issues that occur during transitions of care.

First, rural consumers and primary clinicians reported that it is difficult to arrange appointments in metropolitan services on a single day. Were such appointments better coordinated, rural patients would not have to make multiple long trips to receive the specialist care required.

Second, consultation participants discussed the need to avoid interfering when patients are competent to make their own choices about accepting or rejecting recommended care (and, therefore, failing to attend appointments).

Finally, Aboriginal and Torres Strait Islander patients who need Section 100 medicines can find it difficult to get a prescription on discharge from hospital. Consultation participants reported that it can be difficult to locate a clinician who is allowed to prescribe medicines under the Closing the Gap program. It was suggested that hospital clinicians be allowed to write Section 100 prescriptions in these circumstances, or that general practitioners be alerted when such prescriptions are needed.

Potential improvements and recommendations

Consultation participants suggested that approaches to improvement need to consider both professional practice and improving electronic systems.

Suggested professional practice-based changes include:

- Defining models of person-centred, team-based care and communication
- Defining roles and responsibilities of the healthcare team, and implementing a model of accountability
- Improving patient engagement.

Suggested information-based changes include:

- Improving the interoperability of clinical systems to
 - reduce the burden on clinicians when collecting patient data and documenting communications at transitions of care
 - enable integration of all relevant information into hospital discharge planning
- Improving the access to structured information across systems
- Improving the security of communication systems
- Allowing access to a reliable national clinician database.

A number of consultation participants stated that professional issues and technology issues were equally important.

Potential professional practice-based improvements

Promoting person-centred, team-based models of care and communication

It was suggested that the provision of a contemporary definition of ‘models of care’, which is person-centred and team-based, would help teams to understand why they communicate, and the type of information that each other needs. This would lead to improvements in the quality of communication at transitions of care.

Defining roles, responsibilities and accountabilities

Consultation participants emphasised that the responsibilities of both acute hospital and primary care team members for planning and managing safe, high-quality transitions of care must always be clearly defined and documented.

Many consultation participants suggested the quality of documentation and communication at transitions of care needs to be more professional. Cultural change is required for all levels of the workforce to accept that professional record keeping is very important. It was suggested that peak professional bodies play a role in reinforcing the professional responsibility for ensuring high-quality communication at transitions of care.

There is room for improving professionalism, especially regarding prioritising communication at transitions of care. Such changes would acknowledge the needs and rights of clinicians in different sectors to have access to high-quality, reliable information within an acceptable time frame. It would also help to respect the role of consumers as important members of person-centred care teams.

Consultation participants discussed the need to use ‘systems’ that allocate patient care responsibilities, including responsibilities for communication at transitions of care, to identified team members. If this is done well, and if information is better shared between

team members and their patients, even the most complex patients would have better coordinated care and fewer safety issues.

For transition of care communications, consultation participants confirmed that standards and guidelines are important to help define:

- What information is important
- When the information should be communicated
- How the information should be communicated.

The necessary standards and guidelines, mainly, exist. However, consultation participants identified the need for succinct and relevant communication, which complies with standards. A focus on training, compliance and auditing was therefore needed, rather than more guidelines.

For a transition of care to be more effective, clinicians should be able to use a clinical information system to acknowledge receipt of a referral and accept a handover of care. However, consultation participants acknowledged that there are likely to be many practical barriers to doing this, because of the number of clinicians likely to be involved.

Consultation participants also suggested that 'duty of care' be more clearly defined.

Improving patient engagement

Without doubt, much has been done to develop person-centred models of care. However, as noted above, consumers reported continuing barriers to achieving true, shared-care models.

Consultation participants suggested that there is the potential to develop more consumer information about managing common medical conditions, to support development of health literacy.

Consultation participants discussed the potential to use personal technologies, such as smartphone apps, to assist patients to:

- Develop health literacy
- Navigate the healthcare system
- Control the movement of their health information.

The potential validation, appropriateness and privacy issues associated with relevant applications was also discussed. It is challenging to provide people with poor health literacy with the evidence-based tools to navigate a very complex system, while maintaining their privacy.

Consumers, however, believe the problem of inadequate patient engagement was system-wide, requiring a major cultural change.

Potential information-based improvements

Improving clinical system interoperability

Consultation participants raised concerns about poor system interoperability and the commercial barriers to software vendors developing solutions to this poor interoperability. This impacts on access to diagnostic and medicines information. They felt that this could be solved by setting standards for clinical information systems, and implementing a process to ensure that organisations comply with the standards. Such changes could lead to improvements in the safety of care at transitions, because clinical information could then be accessed by all clinicians involved in a care team.

Some states and territories are starting to link public health organisations with each other and with primary clinicians, and to share diagnostic results and other clinical information across public hospitals. However, it was noted that interoperability issues remain at many points, including between the public and private hospital systems, and within and between some states and territories. The Australian Digital Health Agency is currently researching and consulting on the development of an interoperability framework to address some of these issues

Improving access to structured information across systems

Clinical data needs to be organised and formatted in order for clinicians to access and review healthcare records, and download the information they need. Consultation participants emphasised that, even though clinicians should be able to have access to all data, it is still important that good indexing and succinct summaries of usable clinical information be available. The responsibility for these summaries should be with the clinician who is referring a patient or handing over patient care.

To enable workarounds before the systems are fully interoperable, there was strong support for the following approaches:

- Authorising clinicians to access different systems to enable direct access to important clinical information
- Streamlining access across the entire healthcare system to results from pathology and medical imaging, including in public and private settings, and across state and territory boundaries
- Increasing the proportion of prescriptions and medicine dispense records which are captured and transmitted electronically across the entire healthcare system.

Clinician access to pathology and medical imaging results continues to increase through a range of initiatives. In some states and territories, general practitioners are authorised to access public hospital healthcare records.

Improving the security of communication systems

Consultation participants strongly supported the idea of using secure communication systems across the entire healthcare system, to enable information to be shared safely.

Many organisations still fax information from hospital to general practice, and vice versa. Fax is considered to be more secure than email. However, some general practitioners pointed out that, after receiving the fax, it is usually sent out to multiple people using email. Using paper-based faxes also raises further concerns about managing extra copies of documents. Consultation participants confirmed that developing a uniformly accessible system for secure communication between healthcare providers is a priority.

Allowing access to a reliable national clinician database

Consultation participants suggested a reliable national clinician database is needed as 'basic infrastructure' to enable secure communication between providers. Current clinician directories were described as inadequate, although it was noted that there are a number of provider directory solutions in development or existence.

Other issues

Clinician support

To further support clinicians, consultation participants suggested that:

- Simple aids which autopopulate some data would make patient identification easier, faster and safer
- Electronic prompts about common risks on admission and at various transitions within the continuum of care, and about unexpected readmission, may help to improve patient safety and care.

Consultation participants also suggested that primary clinicians could receive automated notifications of transitions of care within or between hospital settings. Some general practitioners reported that they already receive such notifications regarding patient admissions to hospital. However, there was support for such notifications being provided to more members of the healthcare team, as approved by the patient.

'Information overload' – having access to very large tranches of clinical information for a given patient or patients - does itself present risks. The potential medico-legal consequences of information overload were raised repeatedly by consultation participants.

Role of the My Health Record system

There was discussion at all workshops about how the My Health Record system could be used to help improve communication – and decrease safety risks – at transitions of care.

Consultation participants supported the idea of a centralised, accessible source of health information for every patient. They were generally positive about the potential contribution of the My Health Record system.

Some of the clinicians participating acknowledged that they had a limited understanding of the expected role and function of the My Health Record system in the future Australian healthcare system.

Some consultation participants also suggested that the ideal long-term approach would be an iterative, centralised source of each patient's health information. This would act as a single healthcare record that could be accessed, and contributed to, by all clinicians caring for the patient. However, there are practical limitations of a 'massive central database' and cross-boundary data sharing that need to be considered.

Audit and research

Consultation participants agreed that the quality and timeliness of communications at transitions of care should be regularly audited. Further research into the frequency and causes of failed transitions of care would also be useful.

Conclusions

Consultation undertaken for this project confirmed that clinicians and consumers are frustrated and concerned about safety risks relating to communication at the primary care – acute hospital interface. This supports the original rationale of the National Health CIO Forum in commissioning this report.

Consultation participants highlighted particular features of the Australian healthcare system that increase the risk of communication issues at transition. They confirmed that:

- Elements of effective transitions of care and the issues that affect them are similar across all transitions of care, whether they are, for example, at the primary care – acute hospital interface or within an organisation
- Poor-quality transitions increase safety risks and lead to serious adverse outcomes for patients.

There was a lot of discussion about how health care provision is changing to person-centred, team-based care models in the hospital and community. Consultation participants discussed the need to update models of care and communication methods, to reflect these changes in health care provision.

Consultation participants identified key safety issues and suggested potential improvements, for information systems and communication processes. Consultation participants were generally positive about how they could be applied in practice. Clinical information systems also have some limitations that consultation participants are frustrated about.

The views about the My Health Record system were generally positive, although it is considered to be a system in development. It could contribute to improved information exchange at the primary care – acute hospital interface. The My Health Record system is seen as a secondary source of clinical information, rather than a replacement for current communication methods. An opportunity exists for clinicians to improve their understanding of the role and function of the My Health Record system in the future Australian healthcare system.

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