Recognising and responding to deterioration in mental state

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A scoping review

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Contents

Contents

A note about language

The authors are mindful of the preference among mental health stakeholders for use of language consistent with recovery paradigms including, for example, the terms 'people with lived experience of mental health issues, their families, friends and other supporters'. The authors are also mindful of the focus of the Scoping Review on acute healthcare settings where the term 'patient' is frequently used and preferred. Both sets of terms have been used alongside each other throughout the report.

Executive summary

Project overview

The Australian Commission on Safety and Quality in Health Care (ACSQHC) auspiced a Scoping Review to explore and report on:

- the current knowledge base for recognising and responding to deterioration in the mental state of inpatients in acute settings
- gaps that could be addressed by the ACSQHC
- whether and how the ACSQHC's existing *National Consensus Statement: Essential Elements for Recognising and Responding to Clinical Deterioration* (Consensus Statement), could be applied to deterioration in a person's mental state.

The results presented in this Scoping Review are indicative only. While efforts were made to ensure that a wide range of representative stakeholders participated in the consultation process, the findings may not reflect all perspectives.

The current situation

The view was expressed throughout the consultations that many of the wide range of current assessment scales and tools available for risk assessment and tracking of mental state are used because they are mandated, required by accreditation processes or have an administrative purpose. Current assessment scales have frequently been developed and validated for purposes other than recognising and responding to deterioration in mental state. The Scoping Review identified only a small number of tools that have been developed for the recognition and tracking of deterioration in mental state. These have not yet been evaluated or validated.

Factors involved with adverse outcomes

Factors leading to adverse outcomes associated with deterioration in mental state in acute healthcare settings are likely to be multiple. They include factors relating to a person's mental illness/mental condition and physical health as well as factors related to:

- medication
- the environment of the ward, such as layout and what is happening
- the person's personal relationships and events occurring both inside and outside the hospital
- clinical practice
- communication between staff, including at change of shift.

Identified gaps

Some of the key gaps identified during the Scoping Review included the absence of:

- understanding of the nature, scale and consequences of failures to recognise and effectively respond to deterioration in mental state in acute healthcare settings
- a nationally agreed set of key adverse outcomes associated with failure to recognise and respond effectively to deterioration in mental state in acute healthcare settings
- a nationally agreed set of key markers indicative of deterioration in mental state that are both clinically useful and applicable to acute healthcare settings
- standardised tools that are validated for assessing and tracking deterioration in mental state
- standardised management pathways and protocols for responding to deterioration in mental state in acute healthcare settings that are inclusive of an integrated approach to physiological deterioration and deterioration in mental state
- a nationally agreed set of competencies for recognising and responding to deterioration in mental state in acute healthcare settings supported by training and auditing processes.

Further gaps identified relate to the lack of an Australian evidence base for:

- best practice tools, service responses, strategies and approaches for recognising and responding to deterioration in mental state and for managing associated adverse events

- how people with mental health issues and their families and key supporters view their experience of emergency and acute health care.

Relevance of the *National Consensus Statement: Essential Elements for Recognising and Responding to Clinical Deterioration*

There is evidence of initial agreement across the public and private acute mental healthcare sectors that the framework underpinning the existing Consensus Statement for recognising and responding to physiological deterioration is applicable to deterioration in mental state. It would require adaptation and expansion. Although determining agreed markers of deterioration in mental state might be difficult, there is a level of enthusiasm for attempting this task.

Possible actions

Action 1:
Embed the link between physical health and mental health in the Consensus Statement.

Action 2:
Identify the key adverse events associated with deterioration in mental state.

Action 3:
Develop nationally agreed sets of markers of deterioration in mental state.

Action 4:
Develop nationally agreed pathways and protocols for responding to deterioration in mental state in acute healthcare settings.

Action 5:
Support practice development to improve skill and confidence in recognising and responding to deterioration in mental state in acute healthcare settings.

Action 6:
Support research, evaluation and clinical innovation to enhance early recognition and response to deterioration in mental state and to better manage the potential for adverse outcomes in acute healthcare settings.

Action 7:
Recognise, reward and showcase clinical excellence and innovation in preventing, recognising and responding to deterioration in mental state in acute healthcare settings.

1 Introduction

The Australian Commisson on Safety and Quality in Healthcare (ACSQHC) leads and coordinates improvements in a number of areas relating to safety and quality in health care across Australia. The ACSQHC has a strong commitment to promote, support and encourage safety and quality in the provision of mental health services.

One ACSQHC program concerns the systems and processes needed for recognising and responding to clinical deterioration. The Recognising and Responding to Clinical Deterioration Program has focused on acute physiological deterioration for patients being cared for in acute health facilities. The ACSQHC is now considering how this program can be expanded to consider the needs of patients whose mental state deteriorates acutely.

To inform this new focus, the ACSQHC auspiced the Scoping Review to explore and report on:

- the current knowledge base for recognising and responding to deterioration in mental state of inpatients in acute settings
- gaps that could be addressed by the ACSQHC
- whether and how the ACSQHC's existing framework for recognising and responding to physiological deterioration could be applied to deterioration in a person's mental state.

1.1 The Review's scope

The Review's scope, while recognising that a significant proportion of care for people with mental illness is delivered in the community, focused on acute healthcare settings, including public and private general and specialist mental health hospitals.

The Review's scope included:

- patients treated in an emergency department
- patients whose mental state deteriorates whilst they are in a medical or surgical setting in a general hospital.

The Scoping Review focused on key adverse outcomes possibly associated with deterioration in a patient's mental state including:

- suicide
- self-harm
- aggression and/or harm to other patients, visitors and staff
- seclusion and/or restraint
- self-discharge from acute facilities against medical advice
- the need for involuntary admission and/or readmission.

1.2 Key questions for the Scoping Review

The main questions for the Scoping Review were as follows:

1. How is deterioration in a patient's mental state currently defined and assessed?

2. What are the factors, either individual or systemic, that lead to adverse outcomes associated with this deterioration?

3. How often are there adverse outcomes associated with deterioration in a patient's mental state? Where are these outcomes currently reported? Are they publicly reported?

4. What kind of strategies, tools, frameworks, guidelines and approaches are in place to support early recognition of deterioration in mental state for patients in acute care facilities?

5. What kind of strategies, tools, frameworks, guidelines and approaches are in place to manage the potential for adverse outcomes associated with deterioration in a patient's mental state?

6. How are these strategies evaluated? How successful have these strategies been?

7. What are the gaps that need to be addressed to reduce the risk of adverse outcomes associated with deterioration in a patient's mental state?

8. To what extent can the framework developed by the ACSQHC regarding recognising and responding to physiological deterioration be applied to deterioration in a patient's mental state?

9. What actions may be needed for the ACSQHC to contribute to improvements in this area?

These questions provide the headings for sections 4–12 of this Scoping Review.

2 Background and policy context

Ensuring that patients whose clinical condition deteriorates in hospital receive appropriate and timely care is a key safety and quality challenge. This challenge applies equally to physiological deterioration and deterioration in mental state. This section provides an overview of the background and policy context regarding acute physiological deterioration and safety and deterioration in mental state.

2.1 Recognising and responding to acute physiological deterioration

Since the early 1990s, it has been recognised that serious adverse events such as cardiac arrest and unplanned intensive care admission can occur as a result of unrecognised or under-treated physiological deterioration.[1] Early recognition of physiological deterioration, followed by prompt and effective action, can minimise adverse outcomes such as cardiac arrest, and decrease the number of interventions required to stabilise patients whose condition deteriorates in hospital.[2] There is now a nationally agreed approach to improvement in this area.

2.1.1 National Consensus Statement

In 2010, Health Ministers endorsed the *National Consensus Statement: Essential Elements for Recognising and Responding to Clinical Deterioration* (Consensus Statement)[3] as the national approach for recognising and responding to physiological deterioration in acute care facilities in Australia. The Consensus Statement includes eight essential elements:

Clinical processes

Measurement and documentation of observations

Escalation of care

Rapid response systems

Clinical communication

Organisational prerequisites

Organisational supports

Education

Evaluation, audit and feedback

Technological systems and supports.

As a Consensus Statement, the document represents guidance to assist health services in developing their own recognition and response systems.

2.1.2 National Safety and Quality Health Service Standards

The ACSQHC worked with consumers, clinicians, policy makers and technical experts to develop the *National Safety and Quality Health Services (NSQHS) Standards*.[4] The primary aim of the *NSQHS Standards* is to protect the public from harm and improve the quality of health service provision. The *NSQHS Standards* are a critical component of the Australian Health Services Safety and Quality Accreditation Scheme endorsed by the Australian Health Ministers in November 2011.

The *NSQHS Standards* provide a nationally consistent and uniform set of measures of safety and quality for application across a wide variety of healthcare services. They propose evidence-based improvement strategies to deal with gaps between current and best practice outcomes that affect a large number of patients.

The 10 standards are:

Standard 1: Governance for Safety and Quality in Health Service Organisations

Standard 2: Partnering with Consumers

Standard 3: Preventing and Controlling Healthcare Associated Infections

Standard 4: Medication Safety

Standard 5: Patient Identification and Procedure Matching

Standard 6: Clinical Handover

Standard 7: Blood and Blood Products

Standard 8: Preventing and Managing Pressure Injuries

Standard 9: Recognising and Responding to Clinical Deterioration in Acute Health Care

Standard 10: Preventing Falls and Harm from Falls.

The *NSQHS Standards* are designed to assist all health service organisations to deliver safe and high quality care. The *NSQHS Standards* are integral to the accreditation process as they determine how, and against what, an organisation's performance will be assessed. Health service organisations can use the *NSQHS Standards* as part of their internal quality assurance mechanisms or as part of an external accreditation process.

The intention of NSQHS Standard 9: Recognising and Responding to Clinical Deterioration in Acute Health Care (Standard 9) is to ensure that a patient's deterioration is recognised promptly, and that appropriate action is taken. Currently deterioration in mental state is explicitly excluded from Standard 9.

2.2 Safety and quality in mental health services

Ensuring the safety and quality of treatment and care for people experiencing mental illness or mental disorders is a priority for all Australian governments. Improving recognition and response to mental deterioration will assist to reduce and prevent adverse outcomes and thereby improve safety and quality.

The early recognition of, and response to, deterioration in a person's mental state has the potential to assist in preventing the progression and course of a mental illness and reducing relapse. As a result, hospitalisation and rehospitalisation rates may be reduced. In turn, impairment, disability and reduced prospects frequently associated with re-occurring episodes may also be reduced. Early recognition can also lessen associated impacts and costs for individuals, families, hospital staff, health systems and communities.

Suicide in acute healthcare and mental health settings is fortunately rare. While suicide in these settings can be preventable, this is not always the case. However, improved recognition of and response to deterioration in mental state may contribute to reducing potentially preventable suicide in acute healthcare settings.

The Safety and Quality Partnership Standing Committee (SQPSC), a subgroup of the Mental Health, Drug and Alcohol Principal Committee (MHDAPC) of the Australian Health Ministers' Advisory Council, is responsible for taking forward the Australian Government's mental health safety and quality agenda.

2 Background and policy context

2.3.1 Key mental health policy drivers

National Standards for Mental Health Services 2010
– *The National Standards for Mental Health Services (NSMHS)*[5] are applicable across the broad range of mental health services. This includes bed-based and community mental health services, those in clinical and non-government sectors, those in the private sector and those in primary care and general practice. *NSMHS Standard 2: Safety* sets out criteria for demonstrating that the activities and environment of a mental health service are safe for consumers, carers, families, visitors, staff and its community. The ACSQHC has collaborated with the Department of Health and members of the SQPSC to map the *NSQHS Standards* with the NSMHS, and developed an *Accreditation Workbook for Mental Health Services*.[6]

Fourth Mental Health Plan: An Agenda for Collaborative Government Action in Mental Health 2009–14[7] – This plan renews the commitment to safety, quality and innovation in mental health services. Included in the plan is a commitment to identifying people at risk of suicide and to improve the effectiveness of services and supports available to them. It also includes a commitment to reducing, and where possible eliminating, seclusion and restraint.

A further priority of the *Fourth Mental Health Plan* is the progressive adoption by mental health services of a recovery-oriented culture. To support practitioners and services, the *National Framework for Recovery-Oriented Mental Health Services*[8] was produced. It provides definitions for the concepts of recovery and lived experience. It describes the practice domains and key capabilities necessary for the mental health workforce to function in accordance with recovery-oriented principles. Guidance is provided regarding the tension between maximising choices and supporting positive risk-taking on one hand and duty of care and promoting safety on the other.

The Roadmap for National Mental Health Reform 2012–22[9] – The Council of Australian Governments (COAG) endorsed *The Roadmap for National Mental Health Reform 2012–2022* in December 2012. The roadmap outlines the reform directions governments will take over the next 10 years and re-commits the Australian Government and states and territories to working together towards real improvements in the lives of people with mental illness, their families, carers and communities.

National Safety Priorities in Mental Health – The SQPSC led the development of the *National Safety Priorities in Mental Health: A National Plan for Reducing Harm*.[10] The purpose of this plan (known as the National Mental Health Safety Plan) is to provide national direction in identifying, avoiding and reducing harm across all environments in which care of people with mental health disorders is provided. The key focus is the safety of mental health consumers, carers, families, the community and the workforce. It recognises that understanding and addressing the safety concerns of all stakeholders is critical to improving safety in the mental health sector.

The *National Mental Health Safety Plan* provides leadership in four national priority areas where stakeholders agreed that adverse events can be prevented, and mental health services made safer, namely:

- reducing suicide and deliberate self-harm in mental health and related care settings
- reducing adverse drug events in mental health services
- reducing use of and, where possible, eliminating restraint and seclusion
- safe transport of people experiencing mental disorders.

In addition to the four national priority areas listed above, clinical governance and personal safety were also identified as important priorities.

National Framework for Recovery-oriented Mental Health Services – This framework was released by the Australian Health Ministers' Advisory Council in 2013 in two parts, one covering policy and theory[11] and the other a guide for practitioners and providers.[8] It brings together a range of recovery-oriented approaches developed in Australia's states and territories and draws on national and international research to provide a national understanding and consistent approach to recovery-oriented mental health practice and service delivery. It complements existing professional standards and competency frameworks at a national and state level.

3 Scoping review methodology

The Scoping Review commenced in April 2013. Its methodology comprised:

- a literature review of peer-reviewed and 'grey literature' about recognising and responding to deterioration in mental state (and associated issues)
- a review of relevant Australian and international government policies and guidelines
- a review of Australian and international clinical, professional and peer policies and guidelines
- a review of reports and other information about adverse outcomes that may be associated with failures to recognise and respond to deterioration in a patient's mental state
- interviews with a cross-section of stakeholders
- community consultation via an online survey and an invitation to provide input.

The literature review is provided in Appendix A. It focuses on:

- indicators of deterioration of mental state resulting in adverse outcomes particularly relating to suicide, self-harm, violence, drug misuse and absconding from care
- evaluations of instruments and processes for detecting deterioration and interventions for risk management
- literature summaries and health agency reports relating to safe environments and how deterioration should be monitored, reported and addressed
- the philosophy and rationale for adopting or not adopting particular approaches to care.

Consultations and interviews were held with:

- representatives of mental health consumer organisations
- mental health consumer consultants and peer workers
- representatives of mental health family and carer organisations
- mental health family/carer consultants and family support workers
- individuals with personal experience of mental health issues and/or of supporting a family member or friend
- representatives of state and territory mental health directorates
- community sector organisations
- public mental health sector managers and clinicians
- managers and clinicians of private hospitals and private mental health services
- academics and researchers
- members of the Australian Medical Association Psychiatrists Group (AMAPG) who see patients in both public and private facilities.

In total, 167 individuals provided input to the review. Nine organisations provided submissions whilst 48 responses were received to the online survey (see Appendices D, E and F for details). While a wide range of views were obtained in this process, the results presented in this report are indicative only, and do not represent a definitive sample of the all the stakeholders that were approached.

An analysis and discussion of the key findings from all elements of the Scoping Review are provided in the following sections. Each section is dedicated to a Scoping Review question.

4 How is deterioration in a patient's mental state currently defined and assessed?

This section commences with a discussion of the settings that comprise the focus of the Scoping Review, and then proceeds to discuss:

- how deterioration in mental state is defined, its time frames and markers
- how deterioration in mental state is assessed
- critical risks
- key principles to guide the assessment of deterioration in mental state.

This section concludes with a discussion of key issues associated with how deterioration in mental state is currently defined and assessed in Australian acute inpatient settings. The majority of information for this section was compiled from the analysis and follow-up of submissions, survey responses and consultations.

4.1 Settings and situations

The settings focused upon included private and public healthcare services and their emergency departments, intensive care, general medical, surgical and specialised wards (such as maternity and oncology) and acute mental health wards.

Commonly encountered situations – The three situations most likely to be encountered in acute healthcare settings are:

1. people presenting to emergency departments following self-harm, poisoning, suicidality and violence as a result of acute disturbance associated with alcohol and other drug use

2. people presenting to emergency departments with acute mental illness, extreme psychological distress, or personality disorders including borderline personality disorder

3. people admitted to medical or surgical wards for treatment, who experience deterioration in their mental state during the inpatient stay.

The first situation is common in emergency departments in most tertiary or large general hospitals, where systems and protocols are most often in place for dealing with the issues that arise. The second situation is increasingly common, with emergency departments becoming the prime entry point to acute mental health services. In many instances, however, emergency departments are far from the ideal environment for assessing and treating patients with acute psychiatric illness and high levels of psychological distress. Although staff are trained

in the pharmacological management of disturbed behaviour, training in de-escalation techniques aimed at alleviating distress, agitation and behavioural disturbance and reducing the use of seclusion and restraint may be inadequate.

The experiences of the following two groups of patients in general wards were commonly raised:

- patients with pre-existing mental health conditions who are admitted for physical health care
- older patients who become disturbed following admission, surgery/anaesthetic or the administration of medication.

Patients with pre-existing mental health conditions – The consultations suggested that deterioration in mental state amongst this group is generally preventable with good communication between the patient's mental health team, primary healthcare physician, the general hospital team, and – where it exists – with the early use of a psychiatric consultation liaison service. However, representatives of consumer and carer stakeholders reported experience of encountering negative attitudes among responding staff and a lack of assessment and treatment for presenting medical conditions.

Older patients – Deterioration in the mental state of elderly people admitted for inpatient medical or surgical treatment is not uncommon and is generally due to an acute brain syndrome (delirium), superimposed on some level of existing compromise in cognitive function. It was noted that given the proportion of elderly patients in acute inpatient settings, it is important for all staff to understand the risks of deterioration in mental state and be able to recognise it. The importance of skill in identifying and responding to delirium was also noted.

The need for an integrated approach – The consultations also noted that just as staff working in mental health settings need to be able to recognise and respond to deterioration in a patient's physical health, it is important that training and professional development are provided to support general health staff working in acute care settings to competently recognise and respond to changes in the mental state of patients. The need for this joint expertise is highlighted by the high incidence of chronic disease such as diabetes, respiratory illness and cardiac disease among people with mental illness. Medical emergencies arising from metabolic syndrome also occur in healthcare settings.

4.2 How is deterioration in mental state defined?

On the basis of information before the Scoping Review, it appears that mental health clinicians use the terms 'change' and 'risk' more frequently than the term 'deterioration' when discussing mental state.

While Australian public and private healthcare facilities with psychiatric beds have no agreed definition of deterioration in a patient's mental state, deterioration is anecdotally and generally understood to be anything that is a change for the worse in a person's mental state.

The term 'mental state' is broadly understood to refer to a person's intellectual capacity, emotional state, and general mental health based on clinical observations and interviewing. 'Mental state' comprises mood, behaviour, orientation, judgment, memory, problem-solving ability, and contact with reality.

'Deterioration' refers to changes in a person's mental state that indicate the need for closer observation, clinical review or more frequent review and for the introduction, change or 'up-scaling' of therapeutic interventions.

4.2.1 Time frame

In understanding deterioration in mental state, two dimensions of deterioration were reported as important. Firstly, the time frame of rapid change in acute mental illness or mental disturbance; and secondly, deterioration in the context of an episodic or continuing condition. If the time frame is not narrowly focused on acute illness the task begins to shift to the treatment of mental illness itself. An approach that is too broad would lead to a blurring of acute deterioration in mental state and the mental illness or condition itself. In the context of recognising deterioration in mental state in acute settings, the challenge becomes defining the territory in a helpful and useful way.

4.2.2 Markers of deterioration in mental state

Reflections on the Consensus Statement – In physical health, there is a plethora of validated instruments available for measuring, assessing and charting patient's physical status against parameters of what is known to be physiologically normal, for example, body temperature and blood pressure. The Consensus Statement takes a broad view of clinical deterioration and is not focused on specific symptoms or signs or particular health conditions. The Royal Australian and New Zealand College of Psychiatrists (RANZCP) advised in their comments to the Scoping Review that if a similar approach is taken in mental health, key signs of mental deterioration can readily be recognised by mental state examination – for example, changes in behaviour, speech, affect and mood, thought (stream, form and content), perception, cognition (memory and orientation). Changes in these elements of mental state may be useful markers for recognising deterioration in mental health, just as physiological observations form the base of physical healthcare monitoring.

Complicating factors – The view was frequently put in submissions and survey responses that markers of deterioration in mental state such as those suggested by the RANZCP can be harder to identify and agree upon, given their qualitative nature and individualistic or idiosyncratic presentation. A further complicating factor with recognising deterioration in mental state is its fluctuating nature and non-linear course.

Practice challenges – A practice challenge is for clinicians to have a good enough relationship with each patient to enable a shared understanding of the patient's baseline and a collaborative identification of what deterioration in mental state means for that particular person. A reported challenge is the combining of both clinician and patient reported observations of current functioning with knowledge of any known history of behavioural and clinical observations suggestive of deterioration in a patient's mental state. Overlaid upon this picture are the impacts of, and interplay between, age and stage of development, gender, disability and culture.

4 How is deterioration in a patient's mental state currently defined and assessed?

A possible starting point – Given these challenges, it is not surprising that there is currently no nationally agreed set of markers of deterioration in mental deterioration. The literature review shows that Australia is not alone here. However, reflection on the research and consultations points to a broad set of markers which appear to feature in the recognition of deterioration in mental state in acute settings. These include:

- agitation
- heightened distress
- suicidal ideation or suicidal behaviour
- sleep disturbance
- mood disturbance, especially irritability
- severe clouding of consciousness
- self-presentations, especially requesting help
- confusion
- refusing medication
- increased use of PRN medication[a]
- isolation and withdrawal
- changes in rapport
- intrusive behaviour
- changes in behaviour, such as hostility and aggression
- failure to continue to improve.

Clinical assessment and observation combined with self-report or reports by family and close friends of changes in these elements of mental state may signify significant deterioration in mental health. Just as physiological observations form the base of physical healthcare monitoring, observed changes in mental state perform a similar function in the recognition of mental state deterioration.

An inter-relationship – An inter-relationship between mental state and physiological deterioration is often observed. For example, a worsening of medical conditions and deterioration in physiological observations (such as heart rate, blood pressure, respiratory rate and oxygen saturation) can accompany deterioration in mental state. Mental state deterioration might also be indicative of physiological deterioration. For example, confusion was identified during the consultations as one of the most common and serious yet overlooked signs of physiological deterioration.

4.3 How is deterioration in mental state assessed?

Assessment processes – Assessment is generally conducted upon initial contact with the patient and then at regular intervals (such as during each nursing shift) to enable consideration of trends in the patient's mental state.

The frequency of assessment is influenced by the acuity of the patient's mental state at the time of each assessment. The frequency of assessment is also influenced by change in a patient's usual presentation. Where there are concerns, sight observations might be conducted frequently, such as every 30 minutes. Changes in assessment scores might indicate deterioration in mental state. The frequency of assessment is also reported to be determined by administrative requirements that may or may not have clinical utility.

Submissions, survey responses and the literature agreed about the need for assessment of mental state and recognition of deterioration to be a shared team responsibility given that it requires interpretation of complex signals. There was also agreement that assessment is best conducted, wherever possible, in partnership with the patient. Assessment is assisted by staff being able to spend one-on-one time with each patient as well as by drawing on information and accounts provided by the patient and by family and friends.

Examples of tools – A plethora of practices, tools and guidelines were reported to be in place across Australia to assess and monitor a patient's mental state. Commonly-used assessment tools and instruments have a range of different purposes and have not uniformly been developed or validated for the purpose of recognising and responding to deterioration in mental state.

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a   PRN refers to *pro re nata* from the Latin for 'an occasion that has arisen' and is commonly used in medicine as a short hand for 'when required' or 'as needed'.

Examples of mental state assessment tools include the following:

- **Mental State Examination (MSE)** – a systematic appraisal of the appearance, behaviour, mental functioning and overall demeanour of a person (including appearance, behaviour, mood and affect, cognition, thoughts, perception, understanding of current situation and judgment). In some jurisdictions, the MSE is conducted in unison with the Modified Early Warning Score (MEWS) or similar scoring system that is a measure of deterioration in physical health.

- **Nationally recognised standardised outcome measures** – such as Health of the Nation Outcome Scales (HoNOS) scores and Mental Health Outcome Assessment Tools (MH-OAT). These scales measure the health and social functioning of people with severe mental illness.

- **Mental health clinical risk assessment screens/tools** – such as the Risk Assessment Tracking Tool (RATT), At Risk Category (ARC) score, General Risk Assessment Form (GRA), and Targeted Risk Assessment Form (TRA).

- **Self-report instruments** – including the Mental Health Questionnaire 14 (MHQ-14), Kessler 10+ (a short measure of non-specific psychological distress)[b], Behaviour and Symptom Identification Scale (BASIS-32), Camberwell Assessment of Need – Short Appraisal Schedule (CANSAS), and Depression Anxiety Scales (DASS).

If a mental state examination and risk assessment or information gathered from the patient and from family and close friends indicates a need for further assessment, then tools are often used. Examples provided in submissions and survey responses included numerous condition-specific tools and scales such as those for depression, anxiety, psychosis, and impaired memory and cognitive function. Some of these scales are completed by clinicians through observation, while others require clinicians to ask questions of the patient. Others incorporate both approaches or involve self-reporting by the patient.

The role of clinical intuition and judgement – Views expressed in the literature review, submissions and survey responses agreed on the critical role of clinical intuition and judgement in the assessment process. Inconsistency is always a concern as individual perceptions of risk, threat and deterioration are likely to vary, as is the interpretation of changes in symptoms and/or behaviour.

It is unclear from the information before the Scoping Review as to how mandated staff-rated and consumer-rated scales are routinely used to inform clinical judgment and assessment of deterioration in mental state.

Assessment in non-mental health settings – The research and consultations for the Scoping Review indicated a level of concern about how routinely and how accurately changes in a person's mental state are observed, assessed and recorded in clinical notes in general medical wards. In these settings the Mini-Mental State Examination is often the tool used. General nursing staff may have little training or experience in using such assessments. The suggestion was made that the presence of delirium can be missed or mistaken for mental illness and vice versa. In emergency departments and mental health units, if observation and recording of mental state and deteriorating mental condition is not systematic, it has the potential to lead to patients becoming distressed, possibly aggressive, which may result in seclusion and restraint. Earlier identification and earlier intervention can assist to prevent such situations.

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b   Designed by Professor Ronald C. Kessler, Health Care Policy, Harvard University, the measure was designed as the mental health component at the core of the annual United States National Health Interview Survey. It is a short measure of non-specific psychological distress based on questions about the level of nervousness, agitation, psychological fatigue and depression.

4 How is deterioration in a patient's mental state currently defined and assessed?

4.4 Critical risks

Key points at which a patient might be at particular risk of experiencing deterioration in mental state that were noted in the research and consultations included:

- within 72 hours of admission and following discharge
- during or following the change of shifts and handover
- before and after leave
- before discharge and during the first month following discharge
- in proximity to legal processes occurring, such as Mental Health Review Tribunal hearings, Family Court matters and other legal matters
- when there are problems or difficulties in a person's life such as the breakdown of a relationship.

Early stages of admission or following discharge
The immediate periods following admission to and discharge from mental health facilities were recognised as periods of high risk for suicide. Just as in the case of people with physical healthcare problems, it is important that people with mental health problems in acute care settings are fully assessed at admission and prior to leaving or discharge, including an assessment of active and static risks and protective factors.

Information available to the Scoping Review indicates that following risk assessment, an accepted practice is for a management plan to be developed which records diagnosis (if only tentative), nature of symptoms and problems of concern. Such a management plan can also specify supportive interactions and recorded observations that are consistent with the key features of the patient's presentation and proposed treatment. Similarly, it is accepted practice that an escalation process should be in place.

Shift changeover – The findings of the literature review concurred with the frequently expressed view that the shift changeover point is where practice and systems need to improve. Emphasis was given to improving continuity of care, retaining clinical knowledge about a patient and follow-up of previous observations of deterioration in mental state.

The information before the Scoping Review seemed to indicate that when a major adverse event is retrospectively investigated, points are frequently identified where one or more clinicians had noticed a change in a patient's behaviour or symptoms but either it was not communicated to another member of staff, or the observation was recorded but the record was not seen, noted or acted upon by other staff.

'Critical failure to improve' – Another key point discussed during the consultations was the point at which there was no further progress or improvement in a patient's mental condition following acute deterioration. It was reported that this point is often identified during reviews of critical incidents as the point where failure to progress had apparently occurred but had not been identified, or alternatively, had been identified but not adequately communicated and followed up. This point was identified during the consultations as an important place to intervene within acute settings in order to improve outcomes and to reduce adverse events.

4.5 Important principles to guide the assessment of deterioration in mental state

Having regard to the wishes of the patient and involvement of family and carers – In its submission to the Scoping Review the RANCZP noted that an important and growing focus in contemporary mental health care was on 'personalisation' and 'recovery' – the recognition that treatment and care need to be individualised with a focus on personal recovery. Greater choice and control for patients in their own care are key objectives. Guiding Principle 8 of the Consensus Statement emphasises the importance of care that is patient-focused and appropriate to the wishes of the person and their family or carer.[3] This principle has special relevance for people with mental health problems.

The RANZCP noted that crisis assessment planning, recovery and wellness plans and advanced directives are examples of mechanisms by which patients who are acutely mentally unwell and/or being treated involuntarily can potentially have significant input into their treatment and care. Families and close supportive and caring friends also have a key role and will often be able to identify very early any changes or deterioration in a patient's mental state.

Trauma informed care – The attention of the Scoping Review was drawn to the importance of principles of trauma informed care. Mental health consumer and carer stakeholders emphasised the importance of awareness among all hospital staff, including security personnel, of the likelihood of pre-existing trauma in the lives of people experiencing mental health issues and the potentially traumatising nature of mental ill-health, hospitalisation and mental health interventions. This might particularly be the case where interventions are involuntary. Consumer and carer stakeholders viewed the experience and/or re-triggering of trauma as a key factor associated with deterioration in mental state.

4.6 Summary of issues identified with how deterioration in mental state is currently assessed

Identifying markers of deterioration in mental state – A key issue identified during the consultations was the current lack of a nationally agreed statement on the markers of deterioration in mental state. The view was put during the consultations that priority could usefully be given to identifying the observations most indicative of the adverse outcomes of suicide, self-harm, seclusion, restraint and reliance on high dose PRN. The potential difficulty of this task is underlined by the perceived complexity of the assessment process that requires the interpretation of complex and subtle sets of signs and signals.

Representatives of people with lived experience of mental health issues and families also stressed the need for agreement on key markers, which, if observed, could lead to the prevention of high levels of psychological distress, traumatisation/re-traumatisation and vulnerability to sexual assault and other assault.

Developing and validating tools for recognising and trending deterioration in mental state – Whilst there is no shortage of scales, tools and other resources for assessment of mental state and for risk assessment, there are significant questions about their effectiveness in assisting the recognition and tracking of deterioration in mental state. The view was expressed throughout the consultations that many of the current assessment scales and tools are used because they are mandated, required by accreditation processes or have an administrative purpose. Current assessment scales have often been developed and validated for a purpose other than recognising and responding to deterioration in mental state.

Further, the view was frequently expressed during the consultations that both clinician-reported and patient-reported tools should be able to provide an indicator/assessment of psychological distress simply, accurately, quickly and visually.

5 What gives rise to adverse outcomes associated with deterioration in mental state?

This section discusses of some difficulties associated with conceptualising a relationship between mental state deterioration and adverse outcomes, and identifies a number of adverse outcomes that stakeholders consider to indicate a failure to recognise and respond to deterioration in mental state in the context of acute healthcare settings. The section then proceeds to an analysis of possible factors involved with the occurrence of the identified adverse outcomes.

5.1 Adverse outcomes focused upon during the Scoping Review

To date, Australian mental health policy has generally not explicitly focused on recognising and responding to deterioration in mental state. Nonetheless, it should be noted that this policy framework does focus on the reduction of adverse outcomes that can result from such deterioration. For example the priorities of the *National Mental Health Safety Plan* include suicide, self-harm and the use of restraint and seclusion.

In addition to these adverse outcomes, the ACSQHC tasked the Scoping Review with inquiring about the following events:

- aggression to other patients, visitors and staff
- premature self-discharge from acute facilities
- the need for involuntary admission following admission as a voluntary patient and/or readmission.

During the consultations, stakeholder groups emphasised the importance of a number of other adverse outcomes they thought to be associated with acute deterioration in mental state. For example, representatives of people with lived experience of mental health issues and of families, friends and other supporters emphasised the experience of trauma or re-traumatisation upon hospitalisation; increased and high levels of psychological and emotional distress; and increased symptoms or increased behavioural difficulties.

Clinicians and managers in their responses argued that attention should be given to failure to identify serious deterioration in a person's physical condition and failure to recognise the point at which a patient's mental condition does not continue to improve.

Consultations and research also pointed to the importance of adverse outcomes and events related to mental deterioration being recorded and reported for a period up to 28 days after discharge from an acute mental health setting.

5.2 Thinking through the relationship between adverse outcomes and deterioration in mental state in acute settings

It became apparent during the early stages of the Scoping Review that it is not always possible to establish a direct link between the experience of any of the above-mentioned adverse outcomes and deterioration in the person's mental state in an acute healthcare setting. The occurrence of some of these outcomes does not automatically mean there has been deterioration. Nor does it mean that where deterioration has occurred that the change has been acute. For example, consider serious assault. Many of these incidents are reported to occur in the first days or weeks of an acute admission. In many of these situations however, the assault may not necessarily occur as a result of deterioration, but rather occurs while a patient remains unwell (that is, the person's mental state is unchanged rather than deteriorating) or even while a patient is gradually but incompletely improving. In other words, clinical deterioration may contribute to the occurrence of assault, but assault does not necessarily imply there has been deterioration.

The same could also apply to several of the adverse events listed previously. For example in relation to the extremely serious event of sexual assault (an event requiring diligence to prevent), the proportion of these incidents that occurs as a result of unrecognised deterioration as opposed to other factors in acute healthcare settings (such as ward design, staffing levels, admission criteria) is unknown at this point in time.

The Scoping Review sought advice as to the key adverse outcomes that might be considered to indicate failure to detect deterioration in mental state in the context of acute healthcare settings. The adverse outcomes that stakeholders participating in the Scoping Review consistently gave emphasis to are:

- suicide occurring in hospital
- attempted suicide and other harm to self in hospital
- aggression and/or harm to other patients, staff and to other people in hospital
- the use of seclusion and/or restraint (including repeated and high dose PRN).

Representatives of private hospitals and of people using private mental health inpatient services and their families and friends suggested the additional adverse event of change in a patient's legal status from that of voluntary patient to involuntary patient. In the private mental health system, such a change in legal status generally involves transfer to an acute public mental health unit – a process reported as being traumatising and distressing for all involved. As one chief executive officer of a private hospital explained:

> *'We all view involuntary transfer to a gazetted facility as a catastrophic event and failure. It is catastrophic for all involved – for the patient, for loved ones, for the doctor and for all of our staff'.*

Despite the literature suggesting a link between absconding or premature self-discharge against medical advice and deterioration in mental state in acute inpatient settings, stakeholders did not appear to be uniformly agreed about the strength of that link.

. . . .

5.3 Factors leading to adverse outcomes associated with deterioration in mental state

It is important to acknowledge that information available to the Scoping Review suggests the majority of adverse events associated with deterioration in mental state are thought to occur in the community. Factors leading to adverse outcomes associated with mental deterioration in acute healthcare settings are likely to be multiple. They are likely to include factors related to the patient's experiences immediately prior

to admission, en-route to hospital and during the admission process; the patient's personal and unique set of circumstances; the ward environment; clinical practice; and hospital systems and processes. Each set of factors is discussed in turn.

5.3.1 Pre and early admission factors

Transportation to hospital – The process leading up to admission and the way in which a person is admitted to an emergency department can contribute to further deterioration in mental state. Transportation by police can be highly distressing and traumatising. The cramped, seemingly fast-moving and chaotic, noisy and pressured environment when arriving at an emergency department frequently escalates distress.

Experience of emergency departments – Representatives of people with lived experience of mental health issues and representatives of families and friends identified the lack of quiet and low stimulus rooms and spaces in an emergency department as contributing to heightened fear and hostility among those admitted involuntarily. Emergency department staff may also be without training in the non-violent de-escalation of distress and aggression. The deployment of security personnel was considered by consumer and carer stakeholders to potentially further compound the situation. One consumer representative explained:

> *'If you've been brought in by ambulance or the police, you've already gone through a traumatic experience. So if you come in and there are no beds in the ward, they're usually sleeping you in a solitary room with a security guard where you can't go out for a smoke and you can't leave, and you haven't got free access to the bathroom or shower, and you feel confined in there, and you already know that you're down and out.'*

People from culturally diverse backgrounds, including people whose first language is other than English, are particularly vulnerable when they and staff do not understand each other. This vulnerability is compounded when the different cultural manifestations of their distress are not understood.

5 What gives rise to adverse outcomes associated with deterioration in mental state?

Deterioration in mental state in an emergency department might be overlooked in instances where a person does not have a prior diagnosis of mental illness, is not known to the service and has been admitted due to poor physical health. On the other hand, the physical healthcare needs of a person with a known diagnosis of mental illness might be overlooked. This oversight might result in a seriously ill person experiencing a lengthy wait in the emergency department. A brain injury immediately prior to admission as well as alcohol intoxication and the effects of drugs also frequently compound assessment and triaging difficulties. Failure to be appropriately triaged was reported as a further potential factor in acute deterioration in mental state.

Admission to an acute mental health unit – People admitted to a psychiatric unit can find the environment to be stressful. Representatives of consumer and carer organisations identified the following factors that can contribute to this:

- the absence of peer workers who can welcome the newly admitted patient, be with them, explain ward procedures and support them through the initial period
- the lack of immediate access to showers, tea, coffee and nourishing food
- the lack of timely or prompt therapeutic intervention
- the 'gold fish bowl' situation; referring to staff being confined to the nursing/ward station rather than interacting and supporting newly admitted patients
- the use of seclusion or physical restraint
- the absence of sufficient quiet and private places on the ward.

The mix of patients on an acute ward and their differing needs and circumstances might stretch the capacity of on-duty staff to spend sufficient time with each patient. Another factor identified was a failure for appropriate therapeutic interventions including, in some instances, sufficient medication to be administered early enough.

5.3.2 Individual factors

Factors specific to an individual's circumstances that may lead to adverse outcomes associated with acute deterioration in mental state were reported by stakeholders to include:

- comorbid conditions such as abuse and addiction of drugs and alcohol
- poor physical health and deterioration thereof
- intellectual disability and conditions involving cognitive difficulties or impairments
- the patient's illness itself, in that some illnesses – such as personality disorder – appear to be associated with more adverse outcomes
- the patient's understanding of their own warning signs
- the level of support from family and significant others
- the degree to which a patient (and their family) have linkages with non-government organisations
- a lack of shared understanding of care that leads to conflict with the mental health service and with staff.

Additionally, clinicians reported that a patient might become more of a risk once they start to respond to a treatment. In some instances side effects of treatment itself, such as agitation, restlessness and discomfort, might result in increased distress and anxiety. The experience of side effects might also compound psychotic symptoms.

Alternatively, survey responses and submissions to the Scoping Review and the literature agreed that the occurrence of an adverse incident arising from deterioration in a person's mental state may have little to do with treatment but rather with the changeability in a patient's life and/or mental state.[12] Changeability might be associated with a patient's illness, relationships, social circumstances, and response to changed ward dynamics as patients and staff change.

5.3.3 Environmental factors

Submissions and survey responses indicated there are many acute mental health units that have not been purpose-built. Environments encountered were variously described as being hot, stuffy, cold, crowded and stressful. As a senior clinical nurse consultant stated:

> *'Just what you need when you are unwell. The wards need to be comfortable places, places of asylum, safety and where people can feel they are in good hands. They need to be places you would recommend despite the circumstances or that you would want to use yourself.'*

The lack of space with limited opportunity for physical activity combined with risk-averse operational policies and procedures were reported to contribute to a custodial atmosphere that potentially increases distress and a patient's sense of confinement and loss of control. Self-stigma is reportedly also reinforced. In such circumstances, hope and confidence in recovery can be eroded. Boredom can also give way to frustration and aggression. The reactions of families and friends to the ward's environment can result in further distress for patients.

Representatives of consumer and family organisations as well as professional associations reported that the physical layout and the environment of the acute mental health units with which they were familiar neither promote nor assure safety. As such, they were viewed as potential contributors to deterioration in mental state and to adverse events.

5.3.4 Clinical practice-related factors

Training – Lack of a timely response by clinicians to deterioration was linked by respondents to insufficient training, professional development and supervision. In the absence of appropriate training and support, it was reported that generalist staff may struggle with assessing and monitoring mental state. Staff might also struggle to identify risk factors and to develop, plan and implement strategies that de-escalate distress and aggressive behaviour.

The absence of focused organisational supports might also be a factor in poor team culture and stigmatising attitudes toward patients experiencing mental illness and/or deterioration in their mental state. Lack of appropriate organisational supports may contribute to distress and burnout among staff and a reduced commitment to professional standards.

Shared protocols and language – Lack of agreed and shared protocols for follow-up and monitoring of a patient's mental state combined with the lack of a shared language across acute settings were considered by respondents to play a role in the occurrence of adverse outcomes. Administrative demands were also reported to reduce face-to-face time with patients.

Engagement and observation practice skills – Responses to the online survey suggested that signs of deterioration in mental state might be missed if notes in patient records are made by staff on the basis of appearances only, rather than what has been learned through direct engagement with a patient. For example, observations from a distance are commonly reflected in medical records such as. 'patient appears settled', 'patient appears to be resting' and 'no change observed'. However, change in the quality of rapport and engagement was agreed to be an important indicator of possible deterioration in mental state. The literature and survey responses concurred that a patient's self-appraisal of what is happening and how they are feeling is important and is information that can only be obtained through engagement.[12]

5 What gives rise to adverse outcomes associated with deterioration in mental state?

The literature and survey responses further agreed that engagement with visiting family and friends can also yield information about a patient's benchmark as well as early signs of deterioration.[12] As one mental health nurse educator stated:

> *'Active and engaged observation will assist to identify deterioration but currently too much clinical observation is occurring from a distance. We need to engage and talk more with patients and their family and friends and in this way improve active observation skills. It will also improve the accuracy of our assessments.*
>
> *The best way to find out if someone is becoming unwell is to talk with them, spend time with them – see me, hear me, be with me.*
>
> *Staff often lock themselves away in the 'gold fish bowl' [nursing station] and this results in them not sufficiently interacting and supporting newly admitted patients. Failure to engage and develop rapport and a therapeutic relationship is a big factor in failure to pick up on the patient's deterioration.'*

The ability of the clinician to self-appraise the quality of their own engagement with the patient was also emphasised during the consultations.

Practice skills with older patients – The view was frequently put during the consultations that practice skills in interpreting and recognising signs of change in mental state with particular groups in acute healthcare settings could be improved. For example, it was reported that older patients can feel like they are not listened to and their views not respected because of an assumption that older people 'don't know what they are talking about'. It was said that older patients frequently perceive a culture that is devaluing and bullying of older people.

Cross-cultural competency – Greater cross-cultural competency was also thought to be required to improve understanding of different cultural manifestations of distress and deterioration in mental state. As one family/carer consultant explained:

> *'In many overseas countries, health services don't cut off patients with mental illness from their family and friends. Many families do not have an expectation that they will be excluded and not consulted. Many patients don't understand why their family members are being excluded and assume it is because they [the patient] have done something terribly wrong. Having a first language other than English compounds the difficulties experienced; a situation further compounded when staff do not understand why patients and family are so distressed and may misinterpret the outward manifestation of their distress.'*

Recognising and responding to both physical and mental deterioration – A further practice challenge identified was the need for staff to gain and maintain the requisite knowledge and practice skills to attend to both physical health care and mental health needs of patients in acute healthcare settings.

Repeated high dose PRN – A further practice issue frequently raised was the use of high dose PRN. Two views were put. The first was concern about the risks involved and with the way in which high dose PRN is currently administered in acute mental health inpatient settings. As a senior psychiatrist explained:

> *'We take risks with medicating people with psychiatric illnesses that we don't take elsewhere in hospital settings. An example is the administering of PRN i.e. sedation using intra-muscular injection – there is no proceduralist, no anaesthetist and often no specifically trained nurse. A risk is that after this procedure, a person may lie down, become unconscious and be presumed to be sleeping under sedation. A related issue is that though we have sedation guidelines that are appropriate, when things go wrong, the response can be shambolic'.*

A second view put was that PRN medication could be administered to alleviate escalation of distress and to prevent trauma in certain circumstances. Another experienced psychiatrist explained this view.

'At times we don't use sufficient medication early enough. PRN could be used far better and more appropriately than it currently is and could be used to reduce the risk of extreme distress and the development of PTSD (post-traumatic stress disorder). Sedation is used differently in medical wards than in psychiatric wards – in a sense we are de-sensitised to high levels of distress and possibly fail to question it sufficiently. For example, we often allow people to be transported to hospital in ways that leave them traumatised and determined never to come back to hospital, no matter what the cost.'

A number of key informants argued that there is a case for sedation to be used in situations like this to alleviate the experience of high psychological distress and hence reduce the risk of further deterioration and of people developing post-traumatic stress disorder as a direct result of admission and treatment in an emergency or inpatient setting.

5.3.5 Systems factors

Availability of senior medical opinion – The limited availability of sessional or part-time psychiatrists in some hospitals and its impact on the capacity to provide sufficient senior medical cover was also discussed during consultations with mental health staff. It was reported that this can lead to fragmented and infrequent rounds and duplication of effort from other clinical staff who may have to attend several rounds in the one ward. It can also lead to variable practices including the length of time associated with each aspect of care delivery and significant variation of length of stay within differently zoned settings. A further possible consequence is that a patient might remain in acute inpatient care for a number of days without assertive care progression.

Staffing levels – It was reported that inadequate and inappropriate staffing levels in the evening and during night shifts can set the stage for acute deterioration. Lack of adequate review of patients by medical staff after deterioration is first reported can also lead to an adverse outcome.

Communication and continuity of care – Even when there is an adequate level of expertise and senior supervision, consultations suggested that adverse outcomes can still occur if there is poor communication between staff, particularly at shift handover.

Lack of continuity between clinical staff who are in contact with the patient most of the time can contribute to the loss of vital clinical information. It was also reported to affect continuity of care, and was a frequently reported source of frustration and distress for patients:

'We have to keep on repeating our stories and reliving our pain and distress. We also have to keep asking for what we think is needed – this just increases our sense of loss of control and choice.'

Lack of continued implementation of a treatment plan when a patient is transferred from one setting to another was also highlighted.

Time with patients – As stated previously, administrative load limiting the amount of time staff can spend with patients was frequently identified as a key factor in failure to detect deterioration.

'Something needs to be done to free staff up to be able to spend a maximum amount of time with patients – there is far too much paper work and reporting requirements are onerous.

The goldfish bowl syndrome arises from a mix of factors – practice, training, systemic and cultural.'

5 What gives rise to adverse outcomes associated with deterioration in mental state?

Other systems factors and policy issues – Other systems factors possibly involved with failure to recognise and respond appropriately to deterioration in mental state were reported to include:

- the skill mix of staff working on units (such as the proportion of casually employed or agency supplied staff) combined with occupancy rates and acuity levels of patients in a unit
- the facility setting and location and type of patient accommodation
- the level of security offered for the patient, staff, visitors and others.

Other reported factors include prescribing practices including poly-pharmacy or ill-advised changes in medication as a result of changes in medical management and lack of continuity.

Two policy issues consistently raised by representatives of consumer and family organisations and clinicians alike are the ban on smoking and the use of security personnel. The ban on smoking and inconsistent access to, or provision of, nicotine replacements is reported to contribute to stress, agitation and distress among patients who smoke. The presence and use of security personnel is reported in some circumstances to be a source of anxiety for patients and a factor in fostering perceptions of unsafe environments. The presence of security personnel might also re-trigger trauma for some patients.

5.4 Settings of concern

Concern was expressed during consultations about the extent to which acute deterioration in a patient's mental state is adequately recognised in medical or surgical settings. In these settings the identification of deterioration in mental state is reported to be dependent on the experience and common sense of on-duty nursing staff. Communication about a patient's mental state is anecdotally suspected to be less comprehensive than in a psychiatric unit, or in a psychiatric hospital.

Stigma and fear surrounding mental illness were identified as factors mitigating against staff in medical and surgical wards feeling confident in assisting a patient who is experiencing acute deterioration in mental state.

On the other hand, it was reported that mental health units can be reluctant to accept a patient on transfer from a surgical or medical ward unless there is adequate backup from the treating physician or surgeon involved.

Anecdotally, adverse events associated with failure to recognise and respond appropriately to deterioration in mental state are thought to be a matter of concern in relation to older patients, children, adolescents and young people in acute healthcare settings.

5.5 Summary

Conceptualising the link between deterioration in mental state and adverse outcomes – Attributing a causal link between acute deterioration in mental state and adverse outcomes is not straightforward, as many other factors are frequently at play. Additionally, adverse outcomes associated with acute deterioration in mental state, and failure to recognise that deterioration, have not been a specific focus within Australian national mental health policy frameworks.

Key adverse outcomes – The adverse outcomes that stakeholders participating in the Scoping Review consistently emphasised in relation to deterioration in mental state in acute health settings are: suicide occurring in hospital; attempted suicide in hospital; harm to self, other patients, staff and others in hospital; and the use of seclusion and/or restraint (including repeated and high dose PRN).

Private mental health stakeholders identified the additional adverse event of change in a patient's legal status from that of voluntary patient to involuntary patient; an outcome often necessitating the transfer to an acute public mental health unit or psychiatric hospital.

Adverse outcomes emphasised by mental health consumer and family representatives included the experience of trauma or re-traumatisation and extreme psychological and emotional distress as a direct consequence of hospitalisation.

Factors involved with adverse outcomes – Factors leading to adverse outcomes associated with deterioration in mental state in acute healthcare settings are likely to be multiple and are likely to include: factors relating to a person's mental illness/ mental condition and physical health as well as factors related to treatment; the environment of the ward; the person's personal relationships; clinical practice; and communication between staff at change of shifts. The quality of rapport between staff, patient and family is also viewed as critical.

Through the eyes of patients and families – There was agreement that a greater understanding is required of the perceptions and views of patients and their families and friends, particularly concerning:

- their experience of hospitalisation
- the set of adverse events and outcomes they consider to be associated with acute deterioration in mental state
- their views about the key factors giving rise to the identified adverse events and outcomes.

Conclusion – Stakeholders agreed that it is important to explore the association between adverse outcomes and deterioration in mental state and failures to recognise and respond appropriately in the context of acute healthcare settings.

6 How often are adverse outcomes associated with deterioration in a patient's mental state reported? And where are they reported?

This section outlines available information about the adverse outcomes identified by the ACSQHC for this Scoping Review. To allow a full understanding of the complexity of the mental health sector and the nature of the information available, a summary of key stakeholders in provided first.

6.1 Players and processes

Some jurisdictions have moved to merge sentinel events reporting with other service-level incident reporting requirements. For example, since February 2011, the Victorian Health Incident Management System (VHIMS) has provided publicly-funded health services with a standardised framework for collecting and classifying clinical incidents, occupational health and safety incidents, and consumer feedback information. Data provided to the Department of Health by publicly-funded health services in Victoria is used to gain a more comprehensive understanding of the type, frequency and severity of clinical incidents. Importantly, data on contributing and preventative factors can be analysed, and lessons learned can be shared, so that quality improvement initiatives might be targeted where required.

The Office of the Chief Psychiatrist or the Director of Mental Health in each jurisdiction also play a role in the monitoring of adverse incidents in mental health services. Although their role varies throughout Australia, the role of Office of the Chief Psychiatrist, Director of Mental Health or equivalent, includes monitoring and providing advice about the clinical standards of psychiatric practice and treatment provided by public mental health services and responding to complaints from consumers, carers and others. In Victoria, for example, the role of the Chief Psychiatrist includes:

- receiving and reviewing statutory reports relating to seclusion, mechanical restraint, electroconvulsive therapy, annual examinations and reportable deaths
- investigating treatment-related issues where the Chief Psychiatrist determines such an investigation is warranted
- state-wide clinical review of approved mental health services to examine the standard, quality and consistency of clinical practice provided
- investigating complaints from consumers and carers
- managing enquiries and correspondence from members of the public, service providers and other organisations.

The roles of the Chief Psychiatrist in Western Australia and South Australia are similar to those of the Victorian Chief Psychiatrist. The Chief Psychiatrists of these three states report annually on reportable deaths, seclusion, mechanical restraint, electroconvulsive therapy, annual examinations and other significant treatment-related issues. Annual reports are publicly available. Additionally, reports of investigations conducted by the Chief Psychiatrist into deaths, suicide and other adverse events in mental health inpatient services are generally available publicly. Examples include:

- the Office of the Victorian Chief Psychiatrist, *Report of the Investigation of Inpatient Deaths During the Period 2008–10*[13]
- the Chief Psychiatrist's examination of the clinical care of four cases at Fremantle Hospital.[14]

Both these reports include guidance and recommendations for improving safety and quality of care and for preventing the occurrence of the adverse events.

6.2 A snapshot

The following sections provide a snapshot based on publicly available information related to some of the outcomes of interest regarding deterioration in mental state.

6.2.1 Suicide, attempted suicide and other self-harm

Suicide in acute healthcare and mental health settings is fortunately rare. It is a tragic event that causes much grief and distress for families and friends, health professionals and other personnel and patients. While suicide in these settings can be preventable, this is not always the case. However, improved recognition of and response to deterioration in mental state can also potentially contribute to reducing suicide in an acute healthcare setting.

The Australian Health Ministers have agreed that suicide of a patient in an inpatient unit is a sentinel event in health care, to be publicly reported by jurisdictions as one of a number of nationally agreed core sentinel events.

Suicides in inpatient settings are often preceded by suicide attempts and/or other acts of deliberate self-harm. However, not all self-harm behaviour is suicidal behaviour or related to suicidal thinking or deterioration in mental state. Improved systems of assessment and management of deliberate self-harming behaviours may help to reduce suicides. Health and mental health services throughout Australia have been endeavouring to implement systems-oriented approaches to reducing suicides, suicide attempts and deliberate self-harm. Also important is the implementation of a non-punitive culture that rewards incident reporting and supports its use in continuous quality improvement.

Publicly available information about suicide, self-harm and suicidal behaviour – Most publicly available information on suicide in acute inpatient settings is found in reports at the state and territory level. Data from the Productivity Commission provides summary information about suicides in public inpatient units nationally (Figure 1).

Limitations of publicly available information about suicide – There are a number of limitations of publicly reported data concerning suicide, including:

- difficulty in differentiating where the suicide occurred (such as in an acute or non-acute setting, emergency ward, acute medical ward, acute psychiatric ward)
- at what stage of the admission the suicide occurred
- the health condition for which the person was admitted.

Information is not publicly available concerning suicides occurring while a person is on day leave, or absent without leave, or in the days and weeks immediately following discharge from an acute inpatient unit (whether that be a mental health or other healthcare service).

Reporting of known suicides that occur post-discharge from a private facility can vary anywhere from 28–90 days, depending on the jurisdiction. A logistical issue for private hospitals is that they are often not advised of a person's suicide following discharge.

Figure 1: Suicide of patients in Australian public inpatient units
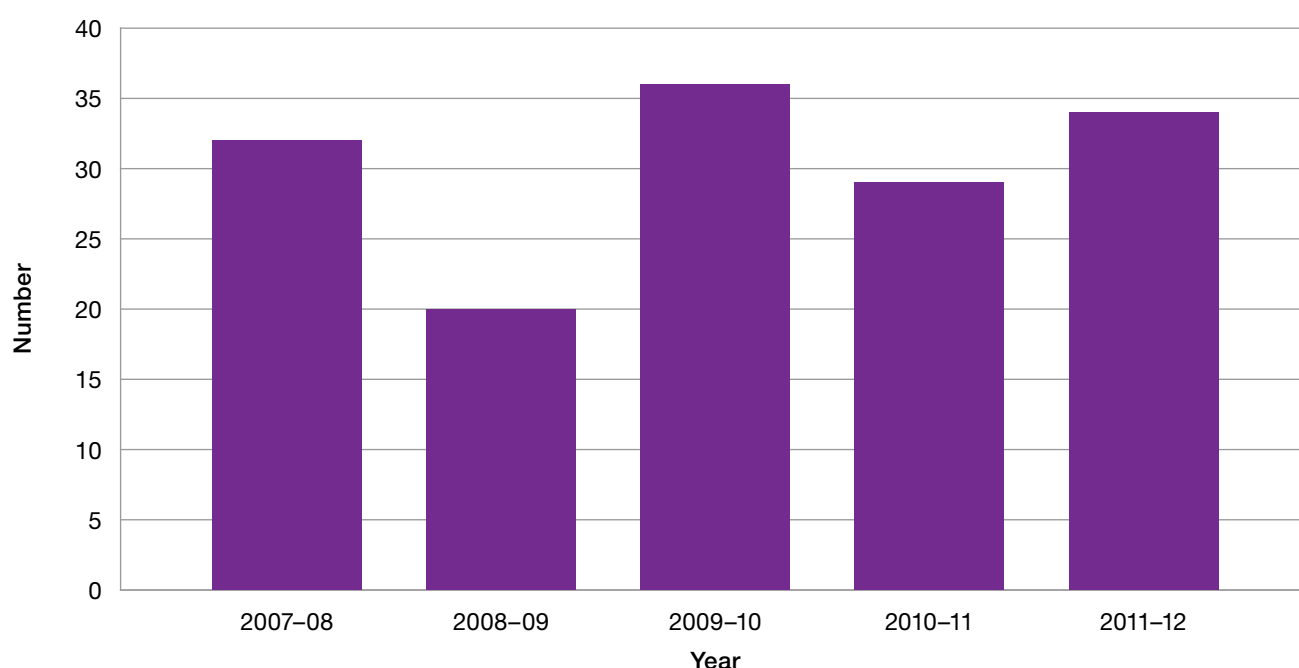
Source: Report on Government Services Volume E: Health, 2014.[15]

6 How often are adverse outcomes associated with deterioration in a patient's mental state reported? And where are they reported?

Information recorded about self-harm, aggression and harm to others varies across Australia and is generally not publicly reported. Public and private hospitals do, however, have incident/adverse event reporting procedures in place that are reported and analysed at the hospital level, district/area level and, where the hospital is a member of a corporate group, at the corporate group level.

There is agreement that national reporting on sentinel events such as suicide in an inpatient unit does not by itself adequately reflect patient safety or assist to identify key directions for improvement. The ACSQHC is working with states, territories and the private health sector to develop agreement on a broader patient safety measurement and reporting model.

6.2.2 Seclusion

Despite some differences, all states and territories require public hospitals and mental health services to routinely record and report incidents of seclusion in their incident reporting systems. There is also a requirement for all incidents of seclusion to be reported to the Chief Psychiatrist or equivalent position.

How the Chief Psychiatrist then uses and responds to this information varies throughout Australia. In most jurisdictions, the Chief Psychiatrist is able to directly inquire about seclusion incidents or seclusion rates that are of concern. In each state and territory there is a system enabling individual services to access their own seclusion data. In a number of states this data can be compared with other services.

In NSW, for example, public mental health services routinely record and report information about five seclusion indicators:

1. **Rate** – seclusion episodes per 1000 acute bed days.

2. **Duration** – average hours per seclusion episode.

3. **Frequency** – per cent of persons experiencing at least one episode of seclusion.

4. **Multi episodes** – of persons secluded, per cent with more than one episode.

5. **Greater than 4 hours** – of persons secluded, per cent with episodes longer than 4 hours.

Comparative data on the five seclusion indicators are provided to mental health services at Local Health District, facility and ward level.

Figure 2: Rate of seclusion events, Australian public sector acute mental health hospital services, 2008–09 to 2011–12[16]
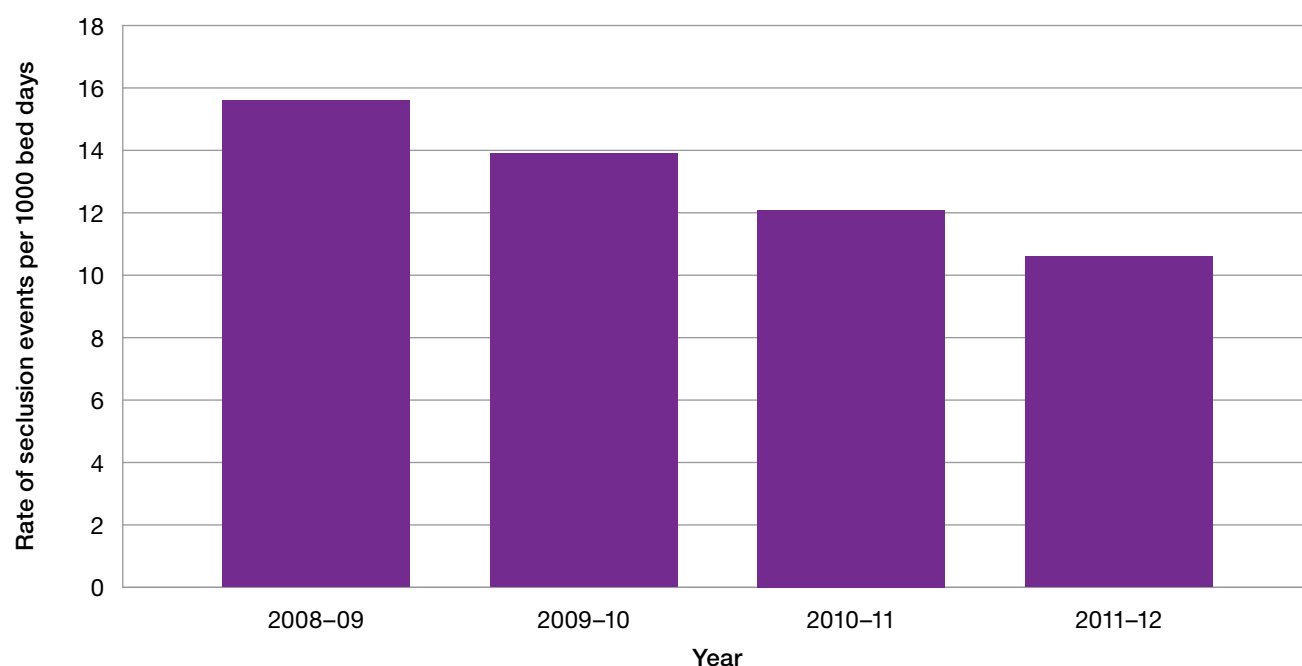
Source: Use of restrictive practices during admitted patient care, Australian Institute of Health and Welfare, 2014.[16]

In Victoria, the Chief Psychiatrist also reports publicly on the duration and the reason for seclusion (risk to others, risk to self, risk to self and others and risk of absconding) and age and gender of individuals secluded. In South Australia, the Office of the Chief Psychiatrist has initiated processes to report publicly on the use of seclusion in emergency departments.

The SQPSC has developed a national seclusion indicator for specialist mental health public acute health services. States and territories now routinely supply seclusion data in line with agreed national definitions. This data is collated, analysed and reported by the Australian Institute of Health and Welfare (AIHW). Data is now available covering the period 2008–09 to 2011–12.[16]

Figure 2 shows that nationally there were 10.6 seclusion events per 1000 bed days in public acute specialised mental health hospital services in 2011–12. Seclusion rates have fallen since 2008–09, from 15.6 seclusion events per 1000 bed days in 2008–09 to 10.6 in 2011–12.

Figure 3 depicts changes in seclusion rates across jurisdictions. The AIHW notes that data for smaller states and territories should be interpreted with caution as small changes in the number of seclusion events can have a marked impact on the state or territorial rate. It should also be noted that not all states and territories have data available for all years.

Figure 3: Rate of seclusion events, Australian public sector acute mental health hospital services, states and territories, 2008–09 to 2011–12

Source: Use of restrictive practices during admitted patient care, Australian Institute of Health and Welfare, 2014.[16]

6 How often are adverse outcomes associated with deterioration in a patient's mental state reported? And where are they reported?

Figure 4 presents data showing the use of seclusion in acute specialised mental health hospital services with different groups.[c] Nationally, child and adolescent units had a higher rate of seclusion events (20.9 per 1000 bed days) compared with general units (11.9) in 2011–12. There was a decline in seclusion rates across the various target population categories between 2008–09 and 2011–12, with the exception of child and adolescent units.

6.2.3 Restraint

The development of agreed definitions and processes for the reporting of restraint is under way. State and territorial differences are being discussed, including whether the use of restraint is an adverse incident or a therapeutic intervention. To progress the situation, the SQPSC has drafted definitions for physical/mechanical restraint and for chemical restraint that are currently being considered by the states and territories.

Currently each state and territory manages its own information on episodes of restraint in mental health inpatient facilities. States and territories differ in what information is publicly reported about restraint. For example, South Australia is endeavouring to collect data on the use of restraint for mental purposes in emergency departments. The public annual report of the Chief Psychiatrist in South Australia presents information on episodes of restraint (and seclusion). However, the reported data combines episodes of both physical and mechanical restraint with episodes of seclusion. In 2011–12, there were a total of 2357 incidents of restraint and seclusion recorded in South Australia for 637 people, with 171 of these incidents occurring in emergency settings with 35 people.[18] In Victoria in the same period there were 593 episodes of mechanical restraint;[19] compared with 512 episodes during 2010–11 and 934 episodes in 2007–08.[13]

Figure 4: Rate of seclusion events, public sector acute mental health hospital services, by target population, 2008–09 to 2011–12
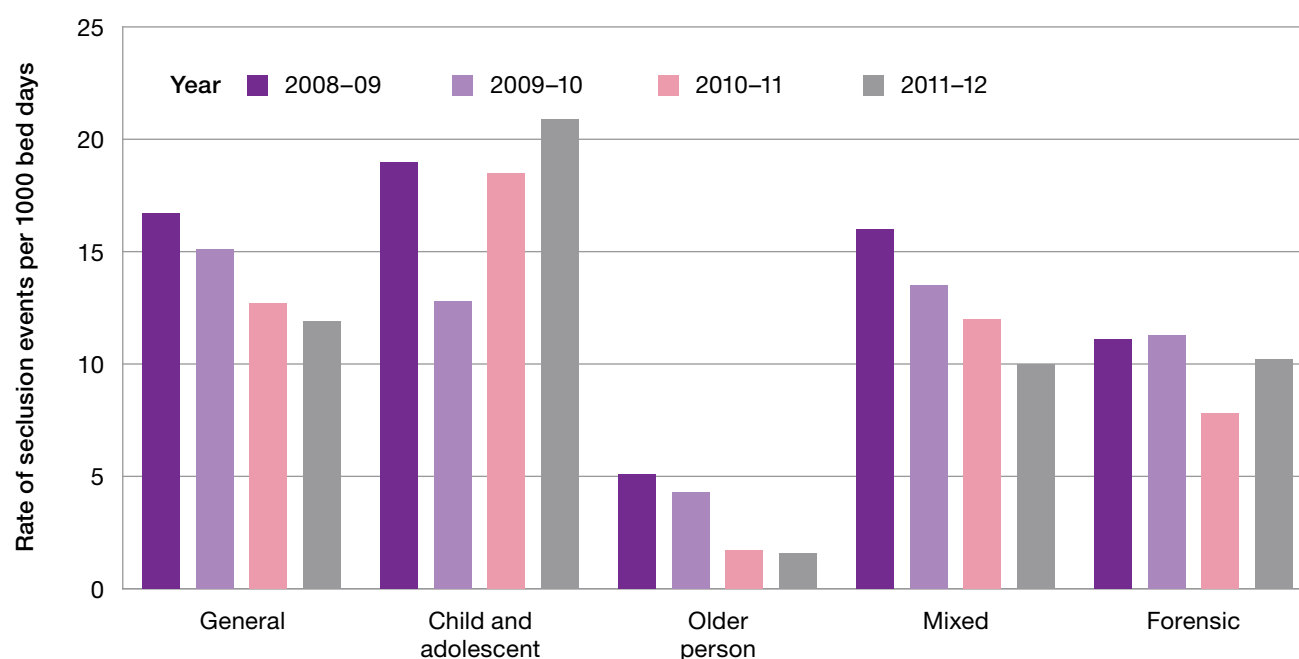
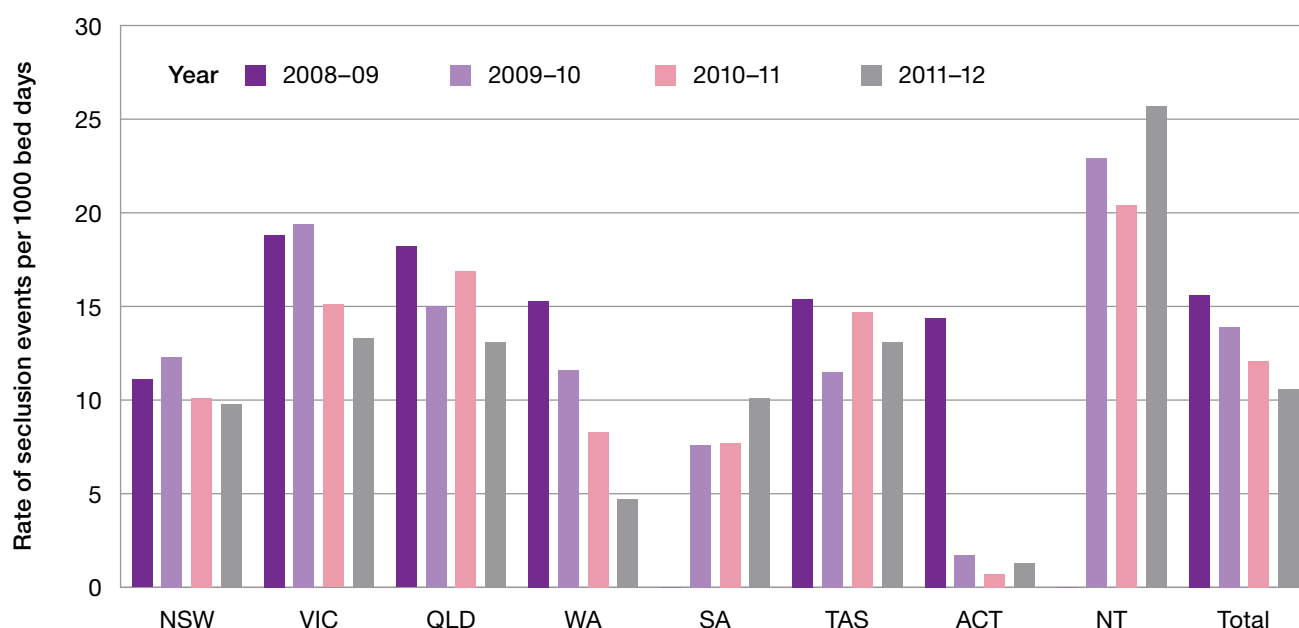Source: Use of restrictive practices during admitted patient care, Australian Institute of Health and Welfare, 2014[16]

c   There are a number of target populations specified in the collection of some specialised mental health data. Child and adolescent data is collected for those who are aged under 18. Older persons are aged 65 or older. Mixed refers to services that may include any of the target population categories in any combination. Forensic refers to those services primarily for people whose health condition has led them to commit, or be suspected of, a criminal offence or make it likely that they will reoffend without adequate treatment or containment.[17]

6.2.4 Involuntary admission following voluntary admission

When deterioration in a patient's mental state occurs in a private facility, the deterioration may occasionally result in the patient being transferred to a secure public sector facility for their own protection and for the protection of others. In some instances this may result in involuntary admission and treatment. Some private facilities reported that they view this change in legal status as an adverse outcome, in that they perceive they have failed to adequately recognise and/or manage the deterioration. Other private facilities take a different view; because leaving a person in a situation where they cannot be adequately monitored and cared for is thought to be a poor outcome for the person.

The private sector's Centralised Data Management Service (CDMS) collects and annually reports on the proportion of patients who were transferred to another acute or psychiatric hospital, but the available data does not specify why a patient was transferred. Information provided to the Scoping Review indicates that in 2011–12 the upper limit of the true rate of transfers from a private mental health service into involuntary care was 2.8% (or 921 transfers).

Similarly, the mental state of a person voluntarily receiving psychiatric treatment in a public mental health inpatient unit might also deteriorate to a point where steps are required to have the person's legal status changed to that of an involuntary patient. Further, the mental state of a patient in a medical ward may deteriorate to a point that transfer to a psychiatric unit is required. Steps might also be taken in these instances to have the person treated on an involuntary basis. National mental health data collection sets currently do not include information that would allow identification of stays in which the legal status is changed from voluntary to involuntary during the stay.

6.2.5 Premature self-discharge or absconding

In the Admitted Patient Care collection within the National Hospital Morbidity Databases (NMDS) there is a field called 'Separation mode', and one of its values is 'Left against medical advice/discharge at own risk'. This could be used to provide an approximate measure of premature self-discharge or absconding. It is not clear whether all persons absconding have this mode recorded, or whether states and territories are consistent in their use of this field. Conceptually, absconding and 'leaving against medical advice' are related but different; for example, some people discharge themselves without leave after a direct and overt process of negotiation with staff. As previously discussed, stakeholders were not uniformly convinced about the strength of absconding as an indicator of deterioration in mental state.

6.2.3 Sexual and other assault

Currently, there is no consistent national reporting from state and territory incident reporting systems of incidents of sexual harassment, sexual assault and other assault occurring in Australian acute care health settings. In these settings, sexual assault and other forms of assault can be experienced and/or perpetrated by a patient with a deteriorating mental state as well as by other patients, staff and visitors.

Incidents of assault and aggression in acute healthcare settings are variously reported throughout Australia via hospital based or service-level incident reporting. Information is also collected and reported to mental health directorates and governments via official or community visitors and organisations responsible for investigating healthcare complaints. Little of this information is publicly reported.

A recent study into women's safety in Victorian psychiatric inpatient settings, reported that 67% of women respondents indicated they had experienced sexual or other forms of harassment during hospitalisation. Forty-five per cent of respondents reported they had experienced sexual assault during an inpatient admission.[20]

6 How often are adverse outcomes associated with deterioration in a patient's mental state reported? And where are they reported?

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6.3 Summary

It is currently difficult to compile a full picture of the nature, scale and consequence of adverse events associated with deterioration in mental state in Australian acute healthcare settings. Given that national mental health policy frameworks are yet to specifically focus on this issue, it is understandable that current national mental health data collections are yet to systematically address relevant data requirements.

Mental health stakeholders welcome the opportunity to collaboratively explore with the ACSQHC how adverse outcomes associated with deterioration in mental state in acute healthcare settings might be best specified, and their nature, scale and consequence usefully documented. In any future work, it will be important to ensure a focus on the set of adverse events and outcomes that people with lived experience of mental health issues and their families and friends consider to be associated with acute deterioration in mental state.

Representatives of mental health stakeholders also welcome the opportunity of supporting the ACSQHC in its work with states, territories and the private health sector to develop agreement on a broader patient safety measurement and reporting model.

7 What is in place to support early recognition of deterioration in mental state in acute care facilities?

This section presents information about what is in place to support the early recognition of deterioration in mental state and the management of potential adverse events. This section should be read in conjunction with the tools and strategies described in Appendix B.

The examples discussed in this section by no means reflect an exhaustive or definitive review. It also is important to note that many of these tools, resources, strategies and guidelines, although helpful, have not been specifically developed for the purpose of assisting the early recognition of, and response to, deterioration in mental state.

7.1 Tools and resources supporting early recognition of deterioration in mental state

7.1.1 Examples of helpful tools

Some of the tools that currently assist the early recognition of deterioration in mental state for patients in acute healthcare settings in Australia include:

- **Clinician-reported tools for recognising deterioration in mental state** – such as Indicators of Psychiatric Deterioration, a tool developed by NSW Health South Western Area Health Service to assist staff to recognise when a person's mental condition is deteriorating (unpublished, personal communication, Nick O'Connor, 2013).

- **Mental health triage resources** – such as the mental health tool of the Australasian Triage Scale[21] and specialist mental health triage scales including, for example, the South Eastern Sydney Area Health Service Mental Health Triage Scale[22] and tools specifically developed for emergency departments.[23]

- **Self-reported tools for distress and mental health state assessment for care planning, risk assessment and mental health status** – such as the Distress Thermometer[24][25] and the mental health thermometer.[26][27]

The introduction of the Personally Controlled e-Health Record (PCEHR)[28] in Australia provides an opportunity for people with mental illness and their clinicians to work together to ensure the person's understanding of their own illness and their preferences inform decisions when hospitalisation is required and when a person may not be able to clearly communicate this information. The PCEHR also potentially provides a foundation for improving the early recognition and response to deterioration in mental state by improving both accuracy in assessment and continuity of care. Positive outcomes for people with mental illness have been reported from overseas trials of similar systems.[29]

7.1.2 Important characteristics of tools and resources that help early recognition of deterioration in mental state

Although the evidence base is limited, on the basis of the information before the Scoping Review, it appears that the effectiveness or helpfulness of the reported tools derive from a number of factors. These include:

- a specific focus on deterioration in mental state
- clear and concise content
- a clear conceptual base
- simple scales
- ease of use
- amenable to both electronic and paper-based formats
- developed through collaboration between mental health clinicians and administrators and consumer and family representatives
- the requirement of a partnership-based relationship between clinicians and patients and their supporting families and friends.

Additionally, helpful tools lend themselves to be used in ways that promote a patient's self-management, hope and confidence in recovery. By supporting self-determination and self-management these tools also assist with reducing risk and managing potential adverse events associated with deterioration in mental state.

7 What is in place to support early recognition of deterioration in mental state in acute care facilities?

7.2 Strategies and approaches supporting early recognition

7.2.1 Examples of helpful strategies and approaches

A cross-section of strategies and approaches that assist early recognition of deterioration in mental state for patients across acute healthcare settings both in Australia and internationally include:

- **Protected engagement time** (PET) – involves re-organising available clinical time in acute mental health units to ensure there is time dedicated to actively engaging patients in a therapeutic working relationship as well as in therapeutic interventions and activities.[30]

- **Consultation liaison** – such as the Queensland Consultation Liaison Psychiatry Services (CLPS) operating at hospitals including the Royal Brisbane and Women's Hospital and Bayside;[31] the Enhanced Crisis Assessment and Treatment Team (ECATT) operating in a number of emergency departments throughout Victoria including the Monash Medical Centre Clayton, Dandenong Hospital and Casey Hospital.[32]

- **Mental health clinicians based in emergency department** – such as the mental health liaison nurse position at Sydney's Royal Prince Alfred Hospital.[33]

- **Specialist mental health emergency care services** – for example in Victoria there are psychiatric assessment and planning units (PAPUs)[34] and mental health short-stay observation units (MHSOUs); in Queensland there are psychiatric emergency centres (PECs);[35] and in NSW there are psychiatric emergency care centres (PECCs).[36]

- **Emergency department drug and alcohol responses** – such as the drug and alcohol brief intervention teams (DABIT) at Cairns Base Hospital, Gold Coast Hospital and the Royal Brisbane and Women's Hospital.[37]

- **Clinical handover strategies** – for example, the care zoning approach in Northern Sydney Local Health District uses a graded traffic light system.[38]

- **Mental health follow-up from emergency departments following suicide risk** – for example the Department of Health, Queensland Health and General Practice Queensland collaborate to enhance follow-up care for people at risk of suicide who present and are discharged from Queensland Health emergency departments.[39]

- **Mental health emergencies and Indigenous people** – such as St Vincent's Hospital Melbourne, Mental Health Service's Aboriginal Hospital Liaison Officers[40] and New Zealand's *Te Rau Whakawhānui – the Māori Mental Health in Emergency Department Collaborative Guidelines* and online learning.[41] [42]

Trained peer workers (both consumers and family workers) and early recognition of deterioration in mental state – The employment of peer workers is often seen as a key component of transforming mental health services to a recovery orientation.[43] Health Workforce Australia (HWA) defines peer workers as:

> *'People who are employed in roles that require them to identify as being, or having been, a mental health consumer or carer.*
>
> *Lived experience of mental illness is an essential criterion of job descriptions, although job titles and related tasks vary.'*[44]

In public hospital settings, peer workers are employed to work in acute and non-acute wards, rehabilitation wards and consultant liaison teams. As well as working with adults, peer workers are employed to work with older people (such as the Older Persons Mental Health Service, Calvary Hospital, Canberra) and young people (such as Orygen Youth Services, Melbourne).

Evidence suggests that peer workers have a role in increasing engagement in treatment and with the early recognition of deterioration as patients frequently share more with peer workers than they do with clinicians.[43] [45-50]

Peer-run services in acute settings – Peer-run services and programs in acute settings as well as peer-run alternatives to admission to acute psychiatric units have also demonstrated positive outcomes.[51]

One example is the Living Room, a peer-run mental health crisis service operating alongside a traditional acute mental health unit in Phoenix Arizona. On arrival, a person is met by a peer triage worker so that their first contact is with someone with lived experience of mental illness. The residential component of the Living Room is homelike and is staffed by peer support crisis specialists. Those admitted to the Living Room are referred to as 'guests' and have full access to food, drinks, recreation facilities and peer-run therapeutic groups. Admission to the adjacent acute mental health unit is arranged where necessary. Peer support workers assist with transfer and transition.[52]

Sub-acute peer services – HWA reports that whilst not completely peer-run, a number of organisations offer services that are staffed by significant numbers of peer workers, and which provide sub-acute residential and step up, step down services. Examples include MIND, Woden Community Services, North Western Mental Health Melbourne and Peel and Rockingham Kwinana Mental Health Service.[44]

7.2.2 Important characteristics of strategies and approaches that help early recognition of deterioration in mental state

The strategies and approaches that show most promise are focused on critical, known points of risk and include:

- arrival at an emergency department
- the early period of admission to a mental health unit
- transfer from one acute setting to another, such as from a medical or surgical ward to an acute mental health unit
- handover period
- preparation for and lead up period to leave or discharge
- the period immediately following discharge from an emergency department or mental health unit.

In addition to emergency departments, there are a number of other settings of known risk including maternity, oncology, cardiac, child and adolescent and older persons' wards. A number of groups are also targeted including those with complex care needs and chronic diseases. Some approaches specifically target Aboriginal and Torres Strait Islander peoples.

Characteristics of promising strategies and approaches include:

- a multidisciplinary approach
- utilisation of the skills and expertise of peer workers and peer-run programs
- a focus on increasing the knowledge, skills and confidence of generalist staff
- provision of a relaxed, informal and homelike environment.

Some of the approaches are in direct response to the recognition of the high incidence of comorbidity and the interplay between physical health, mental health and drug and alcohol related issues. A key characteristic of these particular approaches includes the provision of rapid pathways to specialist mental health assessment and care as well as to physical health care. Further characteristics include agreed and shared written protocols, procedures, communication and governance processes. Partnerships with primary health care and community organisations also feature.

7.3 Guidelines and frameworks of relevance to assisting early recognition

7.3.1 Relevant national guidelines and frameworks

In addition to the Australasian Triage Scale and its mental health triage tool, there are a number of national guidelines or frameworks that provide a degree of guidance to assist the early recognition of deterioration in mental state in acute healthcare settings. Examples include:

- the Australasian College for Emergency Medicine's *Guidelines on Clinical Handover in the Emergency Department*[53]
- the policy of the Australasian College for Emergency Medicine on access to care for patients with mental health conditions provides a broad framework for the management of patients with mental health conditions and acute behavioural disturbance in emergency departments[54]
- *The Management of Mental Disorders: Treatment Protocol Project* seeks to provide a guide for clinicians by encapsulating the best of current practice in the treatment of people with mental disorders.[55]

7 What is in place to support early recognition of deterioration in mental state in acute care facilities?

Guidance is provided for the management of deliberate self-harm through the following national and international guidelines:

- Australasian College for Emergency Medicine and Royal Australian and New Zealand College of Psychiatrists, *Guidelines for the Management of Deliberate Self-harm in Young People*[56]
- Royal Australian and New Zealand College of Psychiatrists, *Australian and New Zealand Clinical Practice Guidelines for the Management of Adult Deliberate Self-harm*.[57]

Nationally there are no practice guidelines specifically focused on recognising and responding to deterioration in mental state in acute healthcare settings. In the United States, the Department of Health and Human Services Substance Abuse and Mental Health Services Administration has issued a resource titled *Practice Guidelines: Core Elements in Responding to Mental Health Crises*. Although not focused on acute care settings, the documentation of essential values, principles and organisational requirements is helpful.[58]

7.3.2 State-based or local guidelines of relevance to supporting early recognition of deterioration in mental state

Either in response to the general nature of existing national guidelines in Australia or to make provision for state-based or local contingencies, guidelines have been developed in all states and territories and in private hospitals that are relevant to the early recognition of deterioration in mental state for patients in acute care facilities. Examples include:

- clinical risk assessment and management (CRAM) policy in Western Australia[59]
- WA Health clinical handover policy[60]
- *Framework for Suicide Risk Assessment and Management for NSW Health Staff*[61] as well as the *Mental Health for Emergency Departments: A Reference Guide* (known as 'the Red Book') in NSW.[23]

Public mental health and health services and private hospitals have also developed guidelines for recognising deterioration involved with specific conditions. For example, as part of a set of protocols for emergency departments, Queensland Health has issued a guideline for the management of patients with psycho-stimulant toxicity including aggressive behaviour and mental health states such as psychosis, paranoia, anxiety and depression.[62]

7.3.3 Observations concerning guidelines and frameworks of relevance to early recognition of deterioration in mental state

Although there are a number of relevant national and state- and territory-based guidelines and frameworks, most are not specifically focused on the early recognition of, response to, deterioration in mental state. The plethora of resources points to an inconsistent approach in a number of key areas. These include:

- the use of mental health triage scales
- standardised tools and resources for supporting the recognition of and response to deterioration in mental state
- standardised management pathways for recognising and responding to deterioration.

8 What is in place to manage potential adverse outcomes associated with deterioration in a patient's mental state?

This section presents information about what is in place to support the management of potential adverse outcomes associated with deterioration in mental state in acute healthcare settings. This section should also be read in conjunction with the tools and strategies described in Appendix C.

Responses to the online survey as well as views in the submissions suggested that there was difficulty in distinguishing tools and strategies for assisting the early recognition of deterioration in mental state from those for assisting the management of potential adverse outcomes. Most resources focused on risk management and reduction, increasing safety more generally and on reducing the use of seclusion and restraint.

In the absence of tools, strategies and frameworks specifically focused on the management of the potential of adverse outcomes associated with acute deterioration in mental state, a decision was made to identify relevant resources.

8.1 Tools that help manage the potential for adverse outcomes

8.1.1 Examples of tools

Despite having been developed for other purposes, there are tools that also help to support the management of potential adverse outcomes associated with deterioration in mental state in acute healthcare settings. Examples include:

- **Physical screening tools for a mental health patient in an emergency department** – such as the NSW Emergency Care Institute's rapid clinical physical assessment tool.[63]

- **Risk assessment and scales for assessing and managing escalating behaviours and levels of danger** – such as the module on identifying and managing seclusion and restraint risk factors adopted by the Victorian Creating Safety Program.[64]

- **Tools for engaging patients in the self-management of the potential for adverse events** – such as wellness and recovery plans (WRAPs),[65] WRAP App for iPhones,[66] relapse prevention signatures, advance care directives,[67 52] safety plans and crisis prevention plans.[64 68]

- **Tools for engaging for engaging families** – such as the Family Recovery Assistance Plan used at St Vincent's Mental Health Service Melbourne.[69]

- **Sensory modulation and de-escalation tools** – such as the De-escalation Preference Survey,[64] environmental and architectural design to create calming and safe spaces,[70] sensory or comfort rooms and low stimulus areas,[71] calming and de-escalating 'equipment', areas enabling physical activity and debriefing tools.[72]

8.1.2 Key features of tools that help manage potential adverse outcomes

Common or key features of the tools that assist with the management of potential adverse outcomes associated with deterioration in mental state in acute healthcare settings include:

- promotion of a patient's understanding of personal triggers and self-management of their condition and risks

- equipping clinicians with practice skills and alternatives to the use of seclusion, mechanical restraint and repeated high dose PRN

- enabling the creation or design of safe and calming environments.

A further characteristic is the promotion of collaboration between patients, their families and friends, clinicians and the organisation to avoid or to learn from the occurrence of adverse outcomes. Additionally, future planning for the avoidance of relapse or mental health crisis and for an agreed clinical response based on a patient's preferences is a common feature.

8 What is in place to manage potential adverse outcomes associated with deterioration in a patient's mental state?

8.2 Strategies and approaches that help manage potential adverse outcomes

Some of the strategies that are reported to support the management of potential adverse outcomes associated with deterioration in mental state in acute healthcare settings include:

- **Strengths-based approach to assessment, treatment planning and practice** – such as the approaches employed by St Vincent's Mental Health Service Melbourne and St Vincent's Mental Health Service Sydney to focus on the patient's strengths rather than deficits and to encourage and foster personal responsibility for recovery rather than passive compliance.[73] [74]
- **Staff training and skill development** – such as the NSW Health Mental Health Emergency Care (MHEC) online learning program in rural and remote hospitals.[75]
- **Approaches to reduce and, where possible, eliminate the use of seclusion and restraint, including debriefing tools** – for example initiatives at the ACT Health Beacon Site including a Clinical Review Committee inclusive of clinical staff, consumer representatives and carer representatives; the Victorian Office of the Chief Psychiatrist's resource: *Violence Free and Coercion Free Mental Health Treatment Environments for the Reduction of Seclusion and Restraint*.[64]
- **Inpatient therapeutic and education programs, physical health, physical activity and fitness initiatives** – such as inpatient programs and activities to support patients to self-manage the pain and emotional turmoil associated with acute psychological distress.[76] [77]
- **Communities of practice** – such as the Mental Health-Emergency Care (MH-EC) Interface Project conducted by the National Institute of Clinical Studies.[78]

8.2.1 Key features of the strategies and approaches that help manage potential adverse outcomes

Common features of the identified strategies include:

- a strengths-based approach
- an emphasis on collaboration with mental health consumer and carer representatives and organisations
- learning from the experiences of patients and their families
- employment of peer workers and consumer consultants
- staff training and skill development in non-coercive de-escalation
- agreed processes and common tools and guidelines across acute healthcare settings
- recovery training and education within acute mental health settings for patients and family and friends
- maximising opportunities within acute settings for participation in therapeutic programs, for being occupied and for activity and recreation.

A further feature is a focus on reducing the potential for, and occurrence of, adverse events such as extreme psychological distress, aggression and violence and the use of seclusion and restraint in safety and quality initiatives.

The approach of the Mental Health Emergency Care Communities of Practice initiative shows promise with its emphasis on working relationships at both a practice level and an organisational level within a local, regional or service network. The focus on those with a common interest in improving emergency mental health care seems transferable to improving recognition and response to deterioration in mental state in acute healthcare settings.

8.3 Guidelines and frameworks of relevance to managing potential adverse outcomes

Neither the literature review nor the consultation processes identified guidelines or policy frameworks developed in Australia specifically for managing potential adverse outcomes associated with deterioration in mental state. Numerous guidelines and policy frameworks were identified for promoting safety and managing risk generally, and for reducing seclusion and restraint more specifically.

8.3.1 State and territory guidance of relevance to managing potential adverse outcomes

Whilst not focused specifically on adverse events arising from acute deterioration in mental state, each state and territory has introduced guidelines and policy frameworks to reduce, and where possible, eliminate restraint and seclusion. Examples include:

- *Policy Statement of Reducing and Where Possible Eliminating Seclusion in Queensland Mental Health Services*[79]
- *Aggression, Seclusion and Restraint in Mental Health Facilities in NSW: Policy Directive.*[80]

The former Victorian Quality Council (VQC), the Chief Psychiatrist and the Quality Assurance Committee supported the development and implementation of the influential Creating Safety: Addressing Restraint and Seclusion Practices project to enable mental health clinicians to apply the best available evidence to clinical practice.[64] As well as a comprehensive set of learning materials, the project also developed and implemented a restraint and seclusion reduction strategy at six selected pilot inpatient units. The project report and seclusion practice literature review are continuing to provide guidance to services in their efforts to reduce, and eliminate wherever possible, the use of seclusion and restraint.[81]

8.3.2 National guidance of relevance to managing potential adverse outcomes

Relevant guidance includes the:

- Royal Australian and New Zealand College of Psychiatrists *Position Statement for Minimising the use of Seclusion and Restraint in People with Mental Illness.*[82]
- National Mental Health Consumer and Carer Forum report *Ending Seclusion and Restraint in Australian Mental Health Services.*[83]

Also relevant is the *Framework for Reducing Adverse Medication Events in Mental Health Services.*[84]

8.3.3 International guidelines and frameworks of relevance to managing potential adverse outcomes

Similar to the Australian context, only a small number of national frameworks could be found with direct relevance to the management of potential adverse events arising from deterioration in mental state.

The American Association for Emergency Psychiatry issued a national consensus statement regarding verbal de-escalation of agitated patients.[85] The statement details foundations for appropriate training for de-escalation and provides intervention guidelines. Ten domains of de-escalation that help clinicians care for agitated patients are also outlined. Traditional methods of treating agitated patients such as routine restraints and involuntary medication, have been replaced with a much greater emphasis on self-management and non-coercive approaches. For example, the statement provides the following guidance:

> *'When working with an agitated patient, there are four main objectives: (1) ensure the safety of the patient, staff, and others in the area; (2) help the patient manage his emotions and distress and maintain or regain control of his behaviour; (3) avoid the use of restraint when at all possible; and (4) avoid coercive interventions that escalate agitation.'*

8 What is in place to manage potential adverse outcomes associated with deterioration in a patient's mental state?

The Massachusetts College of Emergency Physicians, together with the Massachusetts Psychiatric Society, issued the *Joint Task Force Consensus Guidelines on the Medical Clearance Examination Evaluation and Management of the Psychiatric Patient in the Emergency Department* in 1999.[86] As no consensus in the literature was found to delineate a proven and standardised approach, general agreement, based on clinical experience, was obtained to formulate criteria regarding psychiatric patients with low medical risk.

The US Department of Health and Human Services Substance Abuse and Mental Health Services Administration issued the *Roadmap to Seclusion and Restraint Free Mental Health Services*.[87] The Roadmap is supported by the national training resource, *Violence Free and Coercion Free Mental Health Treatment Environments for the Reduction of Seclusion and Restraint*.[64] Parallel to the development of the national training resource is the *Alternatives to Restraint and Seclusion State Infrastructure Grant Project*. This initiative is designed to promote the implementation and evaluation of best practice approaches to preventing and reducing the use of seclusion and restraint in mental health settings.

In the United Kingdom, *Independence, Choice and Risk: A Guide to Best Practice in Supported Decision-Making* promotes a 'positive approach' to the management of risk.[88] Supportive national guidance is provided by the *Best Practice in Managing Risk: Principles and Evidence for Best Practice in the Assessment and Management of Risk to Self and Others in Mental Health Services*.[89] The philosophy underpinning this framework is one that balances care needs against risk needs. Other emphases include positive risk management; prevention and early intervention approaches to avoid the use of seclusion and restraint; and collaboration with the service user and others involved in care.

The United Kingdom guidance also emphasises the importance of recognising and building on the service user's strengths and self-management skills; and the organisation's active role in risk management alongside that of the individual practitioner and the clinical teams.

8.3.4 Observations concerning guidance focused on managing potential adverse outcomes

The review identified a lack of practice guidelines and frameworks specifically focused on managing potential adverse outcomes associated with deterioration in mental state in acute healthcare settings. Relevant guidance, both within Australia and internationally, is largely focused on risk management and reduction of seclusion and restraint. Relevant guidance is underpinned by a philosophy of positive risk management, strengths-based approaches and non-coercive practice. Also featuring are multi-professional and multidisciplinary team-based approaches. Finally, a high level of collaboration between clinical staff, patients and families is emphasised.

9 How are these strategies evaluated? How successful have these strategies been?

9

The literature review (Appendix A) identified that there have been very few formal evaluations of strategies to recognise and respond to deterioration in mental state.

In the absence of a comprehensive evidence base, public and private hospitals are using tools such as clinical incident reviews, root cause analysis and environmental risk audits to review strategies and policies that are in place.

Throughout the public sector, evaluation strategies differ both across and throughout states and territories. For example, at the service level, strategies are evaluated through local documentation audits that consider items such as the regular use of assessment tools in line with patient acuity, the development of patient management plans and the recording of observations such as mental status. Handover audits are also conducted along with case reviews by multidisciplinary teams, performance data and trends considered through clinical governance processes and the review of high-level incidents by clinical panels.

Feedback from consumers is also considered and complaints are managed. Information gained from evaluation strategies is fed back to the local unit/facility and the various levels of management as appropriate. For example, in the ACT the multidisciplinary team regularly evaluates strategies and processes of clinical care for each patient. Multidisciplinary team meetings, ward rounds, seclusion and restraint review meetings review both the care and treatment of individual patients and overall unit practice. There is also further evaluation at the territory-level by the Clinical Review Committee.

Overall, a view that was frequently raised during the consultations was that research of this nature is lacking; particularly research that can assist to develop and validate instruments, tools and strategies specifically focused on recognising and responding to deterioration in mental state and on managing potential adverse outcomes arising from such deterioration.

10 What are the gaps that need to be addressed to reduce the risk of adverse outcomes associated with deterioration in a patient's mental state?

Drawing on a synthesis of all information obtained during the Scoping Review, this section commences with a discussion of identified gaps. The section concludes with a discussion of possible areas for innovation that could assist to manage the potential of adverse outcomes associated with deterioration in a patient's mental state in acute healthcare settings.

10.1 Gaps needing to be addressed

The gaps that that could be usefully addressed are outlined in this section.

10.1.1 An agreed set of markers indicative of deterioration in mental state

There is currently no nationally agreed set of markers indicative of deterioration in a patient's mental state that are both clinically useful and applicable to acute healthcare settings.

Although an extensive review of the research and literature has yielded little guidance, reflection on the consultations point to a broad set of markers for the recognition of acute deterioration in mental state that appear to feature in practice. These markers include agitation; distress; suicidal ideation or suicidal behaviour; sleep disturbance; mood disturbance, especially irritability; severe clouding of consciousness; self-presentations, especially requesting additional medication; refusing medication; increased use of PRN medication; isolation and withdrawal; changes in rapport; changes in behaviour, especially intrusiveness hostility and aggression; and failure to recover.

Given this broad set of frequently-cited markers, a commonly used method of researching international best practice such as the Delphi process, might be usefully employed to establish stakeholder consensus.

10.1.2 Standardised and validated tools for assessing and tracking deterioration in mental state

Mental health stakeholders would welcome support to develop and validate standardised clinician-reported tools to aid the recognition, tracking and response to deterioration in mental state in acute healthcare settings. As a director of psychiatry in a large public acute mental health service argued:

> '… we lack a simple psychometric tool to identify the triggers, trend and then communicate acute deterioration in mental state – simply, quickly, accurately and visually.'

A professor of psychiatry provided further suggestions:

> 'A standardised rating scale could be administered at key points throughout a day as well as in proximity to shift changes or as clinically indicated. A process for its recording and communicating would also be necessary. Any such scale would need to be simple to administer and record – electronic recording would be better. In this way, core groups of staff who routinely work together would become practised over time in using a consistent approach to identify, record and communicate changes in symptoms and behaviours indicative of deterioration or cause for diligence. It would not be impossible to develop a tool for use nationally.'

Similarly, mental health consumer and family representatives would also welcome support to assist the development of validated and standardised self-reported tools that patients might use in self-monitoring their mental state or level of distress whilst hospitalised in an acute healthcare setting.

10.1.3 Specifying key adverse outcomes associated with deterioration in mental state

Mental health stakeholders would welcome the opportunity to collaborate and further explore with the ACSQHC how adverse outcomes associated with failure to recognise and respond effectively to deterioration in mental state in acute healthcare settings might best be specified and their nature, scale and consequence most usefully measured and documented. A senior mental health administrator reflected on this situation:

> *'We don't know how often deterioration in mental state is not recognised and what the consequences and outcomes of such a failure is. We think the problem is not as big in acute mental health units because the frequency of deterioration in mental state is higher and there is more knowledge, awareness and skills to assist with recognising and responding.'*

In any future work it will be important to ensure a focus on the set of adverse events and outcomes that people with lived experience of mental health issues and their families and friends consider to be associated with acute deterioration in mental state.

10.1.4 Consistency in the use of a mental health triage scales in Australian emergency departments

A 2004 review of mental health triage scales and their use in Australia states that using a mental health triage scale improves the competence and confidence of emergency department staff in triaging people with a mental health disorder.[90] The implications of not having a nationally consistent approach to the use of triage scales in emergency departments were also discussed in this review:

> *'There is ad hoc use of mental health triage scales and there are few reports of improvements in service provision to this client group as a result of the use of a mental health triage scale. These findings suggest that, despite the intentions of the National Mental Health Strategy, a lack of equity remains in emergency departments in the provision of care to people with a mental illness who make up one in five of adult Australians.'*

The question of consistency is one that the ACSQHC might choose to consider.

10.1.5 National standardised management pathways and protocols for recognising and responding to deterioration in mental state in acute healthcare settings

Mental health stakeholders would welcome support to develop a set of nationally standardised pathways/protocols for preventing, recognising and responding to deterioration in mental state in acute health settings and for managing potential associated adverse events. Standardised management pathways might comprise:

- agreed strategies for de-escalation of extremely distressed and/or aggressive patients in acute units
- agreed preventative and early intervention strategies when deterioration or escalation of distress or aggression is first noticed, including strategies for the escalation of clinical review and clinical care and for avoiding the use of seclusion, mechanical restraint and repeated high dose PRN
- an agreed range of strategies for the engagement of patients in recognising and self-managing personal markers and early warning signs
- an agreed range of strategies for the engagement of families and friends
- an agreed range of specialised rapid response systems, such as consultation liaison clinicians and teams.

A set of management pathways or protocols might usefully address the points and times of greatest risk as well as the groups of patients within acute settings where there is a high risk or likelihood of co-morbidity. Within these settings or with these groups, a mental health screen could be routinely conducted. Guidance might also be obtained from perinatal initiatives where detection of and response to deterioration in mental state and/or mental health concerns has been significantly improved.

10 What are the gaps that need to be addressed to reduce the risk of adverse outcomes associated with deterioration in a patient's mental state?

10.1.6 Integrated approach to physiological deterioration and deterioration in mental state

The consultations noted that it is important for all health and mental health staff in acute healthcare settings to be competent in effectively recognising and responding to deterioration in both physical state and mental state. The need for this dual competency is underlined by the high incidence of chronic diseases such as diabetes, respiratory illness and cardiac disease among people with mental illness as well as the high incidence of mental health issues among people hospitalised with complex healthcare needs. Further, medical emergencies arising from metabolic syndrome and/or adverse reactions to psychotropic medication and/or poly-pharmacy are not infrequent.

Attention was also drawn to elderly people who are admitted for medical or surgical treatment and who experience deterioration in mental state as a result of an acute brain syndrome (delirium), superimposed on some level of existing compromised cognitive functioning. Research and consultations noted that given the proportion of elderly patients in acute inpatient settings, it is important for all staff to understand the risks of deterioration in mental state and be able to recognise it. The importance of expertise in recognising and responding to delirium was emphasised.

Mental health stakeholders would welcome the opportunity to collaborate and further explore with the ACSQHC an integrated approach to recognising, responding to and managing deterioration in both physiological state and mental state.

10.1.7 Agreed competencies for recognising and responding to deterioration in mental state

Mental health stakeholders would welcome future opportunities to discuss with the ACSQHC the usefulness or otherwise of developing a nationally agreed set of competencies for recognising and responding to deterioration in mental state and for managing the potential of associated adverse events in acute healthcare settings.

A related action is to consider conducting a training needs analysis of staff employed in acute health settings.

10.1.8 Research, information and knowledge gaps

There is a limited Australian evidence base concerning best practice tools, approaches and strategies for recognising and responding to deterioration in mental state and for managing potential associated adverse outcomes in acute healthcare settings.

Little is known about how people with mental health issues and their families experience the time they spend in an Australian emergency department, in an acute mental health unit and in other acute healthcare settings. In 2012, a review was conducted of the admission, referral, discharge and transfer practices of public mental health facilities/services in Western Australia (the report was known as the *Stokes Report* after the author of the review). It highlighted patients' concerns about the inconsistent response of mental health services to their presentation. Concern was also noted about assistance being frequently unavailable until people are at their most vulnerable and in crisis.[91]

Among other issues, the *Stokes Report* stated that there needs to be improvements in the development of patient care plans, assessment of the physical wellbeing of patients, and assessment when patients indicate the possibility of doing self-harm. Also emphasised is the need for consumer and family involvement in the formulation of treatment and care planning. Improvement was also urged in advice given to patients regarding medications and their side effects.

Qualitative information about whether people felt safe, whether they experienced heightened psychological distress or trauma, and whether they were re-traumatised or whether their experience was positive would be beneficial. Additionally, qualitative information about what is important to patients and their families and friends and how they think the safety and quality of their experience can be improved would also be instructive.

Information about different patient groups' experience of acute health settings are required (such as children, adolescents and young people, older people, Indigenous Australians, lesbian, gay, transgender and intersex people and people from culturally and linguistically diverse communities).

10.1.9 Documentation, communication, clinical handover and follow through

Both the findings of the literature review and the consultations suggested that gaps in clinical communication and handover processes occur from time to time. These can result in deterioration in mental state not being acted upon, despite detailed documentation. This is thought to occur because point-in-time based observation and reporting regimes are used, rather than tracking systems capable of issuing visual flags or alerts when a trend of deterioration is indicated. It is also thought to occur because of gaps in the induction of new or temporary staff.

10.1.10 Organisational prerequisites

Gaps in organisation prerequisites or infrastructure for recognising and responding to clinical deterioration that were identified during the consultations included:

- lack of standardisation of patient information systems across acute care settings
- education and training of staff, particularly in the use of mental state and risk assessment tools and the development of management strategies
- clearer lines of responsibility and communication channels
- regular, quality supervision and collegial support.

10.2 Possible areas for innovation

10.2.1 Technological systems and solutions

In medical and surgical awards in some Australian hospitals, wireless alert systems are provided to people with physical care problems to enable them to be moved out of an intensive care unit and other high care settings. They wirelessly signal back people's vital measurements to the nursing station and an alarm is set off when a measurement falls outside the range or when there is no signal. One system is the wireless heart rate and rhythm observation – a patch that transmits the patient's data to the nursing station. There are similar devices for sleep status observations. The possible application of these and similar devices to assist with early recognition of deterioration in mental state is yet to be explored in Australia.

A senior psychiatrist from an acute mental health unit in a busy urban public hospital provided an example of the situations where wireless devices for recording physical observations are indicated:

> *'We have had inpatient deaths as a result of rapid deterioration in their physical condition. For example, in one instance a young man absconded, used drugs, returned and then died quietly in his room. Currently, a person's pulse is only recorded on admission, then daily for three days and then weekly thereafter. In some settings, for example, where an inpatient unit is not in a general hospital, pulse and other physical ratings may be recorded less frequently. Use of a wireless pulse recording system might have saved this young man's life.'*

The senior psychiatrist continued to explain the challenge:

> *'We have a very good system, Between the Flags, for people who are physically ill, but the problem with this in psychiatric settings is that most often people are physically well but a small number of people deteriorate quickly without being noticed and without warning. We have been slow to bring basic good practice and innovations from medical settings into acute psychiatric settings. Mental health care needs to catch up and use layers of technology to improve the safety and quality of care.'*

Core components of the Between the Flags system include the use of a track and trigger system, where observations are regularly monitored, recorded, and there is a protocol in place that requires an action when an observation falls outside agreed parameters. Whilst not reliant on the use of technology, technological devices and infrastructure have been introduced in some settings to support the Between the Flags system.

10 What are the gaps that need to be addressed to reduce the risk of adverse outcomes associated with deterioration in a patient's mental state?

Discussion might usefully occur as to whether technology might be better used in acute mental health inpatient settings to:

- involve patients in their own self-monitoring
- enable clinicians to use tools that wirelessly monitor signs that are suggestive of deterioration in physical condition and/or mental state
- assist to make acute mental health settings safer.

Technological innovations and systems might also be used to identify distress at an early stage before it escalates. Another senior mental health clinician explained:

> *'We have backed away in mental health inpatient settings from giving patients assess to technology that is used every day by most people, even their own private equipment. This is in contrast to all other medical settings. It is also out of touch with reality. We need to look at how we can use mobiles, iPads and laptops to enlist people into monitoring their own distress and deterioration in their mental state or, in the positive, their own wellbeing. We could create applications that enable people to self-rate how they are feeling and when they feel unwell and distressed, people could then be given phones or tablets on admission so that they could understand their condition better and self-manage better.'*

With the progressive introduction of electronic medical records throughout Australia, the view was consistently put throughout the Scoping Review that there is potential to explore new technical platforms that enable people to self-report and self-rate their mental state whilst in hospital and the community. The next step after that would be linking both personal ratings and clinician ratings and having the two groups wirelessly and electronically communicating with each other.

10.2.2 Improved architectural and environmental design

Improved architectural and environmental design has a role in enhancing the safety and quality of health care for people with mental illness, acute psychological distress and behavioural disturbance. Removal of hanging points and solutions for areas not easily and routinely monitored are also important. More homelike environments and quiet and low stimuli areas are required as are spaces that afford safe opportunities for physical activity, occupation and recreation.

10.2.3 Peer-run and co-designed service responses

A recent scan of the research and literature concluded that there is strong and growing evidence to support the further establishment of peer support roles and peer-run services and programs. Benefits of peer workers and peer-run programs in acute healthcare settings include a greater recovery orientation of services; better engagement by patients with clinicians and in treatment; and earlier detection of deterioration in mental state.[44]

Peer workers can assist in providing a greater understanding among clinicians of how admission, assessment and hospitalisation processes can be experienced by patients with heightened levels of psychological distress and acute exacerbation of psychiatric symptoms. Appropriately recruited, trained and supported, peer workers can offer an improved experience of treatment and hospitalisation. They can also support patients with their efforts at self-management and their transitions during hospitalisation and upon discharge.[47]

Although the further development of this workforce is not without its challenges, it appears that considerable benefits would flow from a broader deployment of peer workers within mental health services including in acute settings.

10.2.4 Bench-marking and reducing adverse outcomes associated with deterioration in mental state

A common suggestion made during the consultations was to consider opportunities for benchmarking an agreed set of adverse outcomes between like acute mental healthcare services (such as comparable patient characteristics, number of beds, number of staff, geographic location). It would be important that clusters of 'like' services could compare their results with a view to assisting each other to improve practice as well as the safety and quality of care.

11 To what extent can the framework developed by the ACSQHC regarding recognising and responding to physiological deterioration be applied to deterioration in a patient's mental state?

This section provides an overview of how the approach developed by the ACSQHC regarding recognising and responding to deterioration in physical health in the Consensus Statement could be applied to deterioration in mental state.

11.1 Broad relevance

There is some agreement across the public and private acute mental health sectors that at a general or broad level the guiding principles and the essential elements of the Consensus Statement are relevant to the recognition of and response to deterioration in mental state.

For example, just as in the case of people with physical healthcare problems, people with mental health issues in acute healthcare settings need to be fully assessed at admission, including an assessment of active and static risks and strengths and protective factors. A clear management plan is required that records the diagnosis, nature of the symptoms and problems of concern, and that specifies supportive interactions and recorded observations consistent with the key features of the patient's presentation and proposed treatment and support. Similarly, an escalation plan is required.

The organisational prerequisites and essential elements set out in the Consensus Statement also apply to the treatment and care of patients experiencing acute deterioration in mental state. Organisational supports, education and training, evaluation and audits should be central components of the prevention and management of mental deterioration in patients in acute settings. The development, adaption and adoption of technical supports or solutions is an area that has not been given sufficient priority to date in mental health care.

Broadly speaking, the criteria to achieve the implementation of *NSQHS Standard 9: Recognising and Responding to Clinical Deterioration in Acute Health Care* may also be applied to the deterioration of a patient's mental state. These criteria are:

- establishing recognition and response systems
- recognising clinical deterioration and escalating care
- responding to clinical deterioration
- communicating with patients and their families and friends.

The actions required and examples of evidence, tools and implementation strategies will, however, differ. There is some agreement that the application of these criteria to the recognition and response to deterioration in mental state would assist the development of standardised recognition and tracking tools, as well as the development of standard management pathways. Examples of these include:

- de-escalation, and promotion of quiet rooms and counselling, rather than medication and seclusion
- guidelines for the crisis management of drug induced psychosis and situation crises
- the engagement of patients in the recognition, communication and management of deterioration in their mental state
- the engagement of families and close friends in assisting to identify and respond to deterioration in mental state.

11 To what extent can the framework developed by the ACSQHC regarding recognising and responding to physiological deterioration be applied to deterioration in a patient's mental state?

11.2 Challenges

However, despite the broad relevance, there is some agreement that the existing framework as it now stands would be challenging to apply across the board. A key area of difficulty is the clinical process of Measurement and Documentation of Observations (Essential Element 1 of the Consensus Statement). Where the Consensus Statement uses objective physiological markers (such as blood pressure, heart rate) to determine if there is deterioration in physical health, markers of deterioration in mental state are more qualitative in nature. Despite this, information before the Scoping Review suggests identification of a key set of markers indicative of deterioration in mental state is not an impossible task.

Some markers might feature differently with different age groups. For example, in relation to young people, changes in rapport and engagement are likely to be a significant indicator of deterioration in mental state. Consultations suggested that any deterioration in an older patient's mental state should also trigger a review of a person's physical condition, that is, that processes for review of mental state need to be linked to processes for review of physical health. Although it is important for patients of any age, a special emphasis should be placed on people aged 65 years and over who have a known physical condition with a degree of instability. It is possible that additional training modules are required for clinicians working with different age groups. Currently, most generic training targets adults.

Mental health risk assessment differs from understanding the highs and lows of physiological observations. The immediate periods following admission to and discharge from mental health facilities are recognised as periods of very high risk for suicide. There is a need to balance response to acute deterioration with recovery concepts of 'dignity of risk'. Health services will need to work with this tension, rather than work to eliminate it.

Essential Element 3 of the Consensus Statement (Rapid Response Systems) might also require modification as it is possible that additional critical actions would be required depending on where and when deterioration in mental state is detected. For example, additional or specific actions might be required when working with children, young people or older people in medical or surgical wards.

Another essential element in the Consensus Statement that might require revision is the clinical process of Clinical Communication (Essential Element 4). As the majority of adverse events are related to the deterioration of a patient's mental state in a community mental health setting rather than the acute setting, clinical communication would need to extend to key players involved with a person's treatment, care and follow-up in the community. Communication between the acute care setting and key community mental health and primary health players is essential to address the known risk points of leave and during the first 28 days following discharge.

11.3 Way forward – adapt the existing framework or develop a further framework

There were different views about whether a further consensus statement was required. Some stakeholders and representatives argued that the development of a national consensus statement on recognising and responding to deterioration in mental state would be an important first step in improving practice in this area. Others favoured attempting an integrated approach. For example, a Director of Psychiatry stated:

> '*The consensus statement for recognising and responding to deterioration in physical condition has had a significant role in improving the safety and quality in health care. It has been enormously useful and important. We must find a way to incorporate deterioration in mental state into the current frameworks as against creating a new framework.*'

The consensus view appears to be reflected in this quotation. There was support for the advisability of first attempting to adapt the existing framework by embedding the link between physical and mental deterioration and by adding new sections and materials where required.

11.4 Expressed priorities

There is consensus that any future national guideline or framework development should result in tools and resources that are clinically useful and helpful. Some relevant advice provided during the consultations included the following:

'In relation to recognition of deterioration, what are the real triggers in mental health? What knowledge is available internationally? This is a problem that others in other countries are exploring. There needs to be a thorough search of international practice.'

'The ACSQHC needs to exercise caution. If the signals of mental state deterioration are crude, they could lead to simple and unhelpful interventions such as seclusion.'

'It is important to check with mental health practitioners about their clinical practice to ensure that any mechanism or tools are not overly complicated.'

'There is a need not to impose more paperwork that detracts from direct face-to-face patient care. Direct interaction with patients in psychiatric care is of itself one of the primary treatments that helps to prevent deterioration in a patient's mental state as well as adverse outcomes. Sadly, there is now so much time spent on paperwork to meet a plethora of administrative and regulatory requirements that some of the deeper systemic problems that can lead to adverse outcomes are not being identified and dealt with.'

There was a degree of agreement with the sentiments expressed in the last quotation. Any future national guidelines or framework development should not result in a complex overlay of reporting and administrative requirements.

11.5 Conclusion

There is evidence of initial agreement across the public and private acute mental healthcare sectors that the framework underpinning the existing Consensus Statement for recognising and responding to physiological deterioration is applicable. But it would require adaptation and expansion to enable its application to changes in mental state. There is a level of enthusiasm for attempting to formulate an agreed set of markers of deterioration in mental state, irrespective of any possible difficulties.

Any supporting implementation guidelines would need to be specific to both acute psychiatric settings and emergency settings. Additional guidelines and resources might be required to assist the staff of medical and surgical settings to increase their knowledge and skill base and comfort and confidence levels in recognising and responding to deterioration in mental state.

Further, it is important that both the private and public acute care sectors are fully involved in any future work by the ACSQHC to address deterioration in mental state. Any future guidelines or resources need to be applicable to, and useful for, both sectors. It will be essential to draw on the wisdom of people with lived experience of mental health issues and their families as well as on the practice experience of clinicians and service managers.

12 What actions may be needed for the ACSQHC to contribute to improvements in this area?

This section includes suggested actions for consideration by the ACSQHC arising from the research and consultations conducted as part of the Scoping Review.

Action 1:
Embed the link between physical health and mental health in the Consensus Statement

Consistent with a whole-of-life policy emphasis, together with the known clinical relationships between deterioration in physiological and mental states, revision of the Consensus Statement is required to embed a link between physiological deterioration and deterioration in mental state.

Action 2:
Identify the key adverse events associated with deterioration in mental state

That the ACSQHC, in collaboration with relevant stakeholders including the National Mental Health Commission, the Safety Quality and Partnerships Standing Committee, representatives of public and private mental health services and mental health consumer and carer representative organisations, undertake work to identify and specify a set of key adverse events that might best indicate a failure to recognise and respond effectively to deterioration in mental state in acute health care settings.

Action 3:
Develop nationally agreed sets of markers of deterioration in mental state

That the ACSQHC, in collaboration with relevant stakeholders including the National Mental Health Commission, the Safety Quality and Partnerships Standing Committee, representatives of public and private mental health services and mental health consumer and carer representative organisations, develop a nationally agreed set of markers of deterioration in mental state as observed and reported by:

1. the patient

2. health and mental health professionals

3. family and friends who are providing care and support.

Consideration could be given to the development and validation of sets of key markers via Delphi processes led by expert reference groups comprised of representatives of the relevant stakeholder groups and other suitably experienced people.

Action 4:
Develop nationally agreed pathways and protocols for responding to deterioration in mental state in acute healthcare settings

That the ACSQHC, in collaboration with relevant stakeholders including the National Mental Health Commission, the Safety Quality and Partnerships Standing Committee, representatives of public and private mental health services and mental health consumer and carer representative organisations, explore the usefulness of developing nationally agreed pathways and protocols for responding to deterioration in mental state in acute healthcare settings.

This piece of work could explore the usefulness of providing clear guidance nationally on the actions to be taken and service responses to be initiated when deterioration in a patient's mental state is observed in an acute healthcare setting. The guidance might encompass different acute care settings and patient groups and would be relevant and applicable to both private and public healthcare services. Any such guidance would require attention to principles of trauma informed care and the recently released *National Framework for Recovery Oriented Mental Health Services.*

Action 5:
Support practice development to improve skill and confidence in recognising and responding to deterioration in mental state in acute healthcare settings

That the ACSQHC support health services to provide professional development opportunities for staff to enhance their knowledge and skill in recognising and responding to deterioration in mental state and for managing the potential of associated adverse events in acute care settings.

A communities of practice approach might be usefully considered as might the augmenting of recent or current relevant initiatives including the Beacon Demonstration Sites of the National Mental Health Seclusion and Restraint Project; Mental Health Professional Online Development; national web-based clearinghouses and resources; and the work of the Australian Mental Health Professional Network.

Lessons from the Mental Health-Emergency Care (MH-EC) Interface Project conducted throughout Australia by the National Institute of Clinical Studies (NICS) might be reflected upon and incorporated.

Action 6:
Support research, evaluation and clinical innovation to enhance early recognition and response to deterioration in mental state and to better manage the potential for adverse outcomes in acute healthcare settings

That the ACSQHC, with a view to assisting to drive quality and safety and clinical innovation based on an Australian evidence base, initiate a program of support for research trials and evaluations that might test and validate the following:

- tools, applications and technological solutions such as clinical distress tools and applications that are interactive, self-reported, relational and visual; use wireless technology; and collate and trend information about markers and wellness recovery action plans, relapse signatures and crisis prevention plans

- service responses, strategies and programs including peer worker models
- integrated approaches for recognising and responding to physiological deterioration and deterioration in mental state
- training and education
- organisational supports.

The establishment of clinical innovation interest groups might be a suitable vehicle for developing, coordinating, reporting on and learning from research trials and evaluations.

Action 7:
Recognise, reward and showcase clinical excellence and innovation in preventing, recognising and responding to deterioration in mental state in acute healthcare settings

That the ACSQHC, in collaboration with relevant stakeholders including the National Mental Health Commission, the Safety Quality and Partnerships Standing Committee, representatives of public and private mental health services and mental health consumer and carer representative organisations, hold a national forum on a regular basis to encourage, acknowledge and reward clinical excellence and innovation in preventing, recognising and responding to deterioration in mental state in acute healthcare settings.

A forum of this nature could also serve to promote networking, information and resource sharing and dissemination.

Abbreviations

ABS	Australian Bureau of Statistics
ACEM	Australasian College of Emergency Medicine
ACMHN	Australian College Mental Health Nurses
ACSQHC	Australian Commission on Safety and Quality in Health Care
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute Health and Welfare
AMAPG	Australian Medical Association Psychiatrist Group
ATS	Australasian Triage Scale
CDMS	Centralised Data Management Services (administered by the Private Mental Health Alliance)
CLPS	Consultation Liaison Psychiatry Services
DABIT	Drug and Alcohol Brief Intervention Team
ECATT	Enhanced Crisis Assessment and Treatment Team
HoNOS	Health of the National Outcome Scales
HWA	Health Workforce Australia
MEWS	Modified Early Warning Score
MHCA	Mental Health Council of Australia
MHDAPC	Australian Health Ministers Advisory Council's Mental Health, Drug and Alcohol Principal Committee
MH-EC Interface Project	Mental Health-Emergency Care Interface Project
MHSOU	Mental Health Short-stay Observation Unit
MSE	Mental State Examination
NEHTA	National Electronic Health Transition Authority

NICE	National Institute for Health and Care Excellence (UK)
NICS	National Institute of Clinical Studies
NMDS	National Hospital Morbidity Databases
NMHC	National Mental Health Commission
NMHCCF	National Mental Health Consumer and Carer Forum
NMHS Standards	*National Mental Health Services Standards*
NSQHS Standards	*National Safety Quality Health Services Standards*
PAPU	Psychiatric Assessment Units
PCEHR	Personal Controlled Electronic Health Record
PEC	Psychiatric Emergency Centre
PECC	Psychiatric Emergency Care Centre
PET	Protected Engagement Time
PMHA	Private Mental Health Alliance
PRN	*pro re nata* meaning 'as required'
RANZCP	Royal Australian and New Zealand College of Psychiatrists
SAMHSA	United States of America the Department of Health and Human Services Substance Abuse and Mental Health Services Administration
SQPSC	Safety Quality Partnerships Standing Committee
VHIMS	Victorian Health Incident Management System
VMIAC	Victorian Mental Illness Awareness Council
VQC	Victorian Quality Council
WRAP	Wellness Recovery Action Plan

Appendix A:
Literature Review

A review of the literature was carried out utilising leading databases including CINAHL, Medline, PsychINFO and Health Business Full Text Elite databases and search instruments, covering the period January 1995–June 2013.

Key search phrases and words were: mental health inpatient care; monitoring mental state; deterioration mental state psychiatric inpatients; adverse event/ adverse outcome; patient safety; risk assessment; risk management; and methods and tools.

The aim of the review was to explore the literature with respect to:

- the nature and consequences of deterioration in mental state in acute healthcare settings
- patient characteristics and other risk factors
- processes and instruments to identify and address deterioration
- principles and guiding approaches to identifying and managing the deterioration of mental health inpatients.

In all, 143 references were identified. Of these, 36 were selected for more detailed study.

The 36 papers selected for review included those papers that referred to:

- indicators of deterioration of mental state resulting in negative outcomes particularly relating to suicide, self-harm, violence, drug misuse and absconding from care
- evaluations of instruments and processes for detecting deterioration and interventions for risk management
- literature summaries and health agency reports relating to safe environments and how deterioration should be monitored, reported and addressed
- the philosophy and rationale for adopting or not adopting particular approaches to care.

Overall, few systematic studies have been published that provide guidance and instruments focused on the recognition and response to deterioration in mental state.

The following discussion refers to the 36 papers identified in the literature search which were directly relevant to this report. Most of the studies focused on risk identification and management, particularly in relation to specific groups such as the elderly, youth and forensic populations. Specific challenges such as preventing self-harm, suicide or violence formed the focus of many studies.

Notwithstanding the importance of the subject and what would appear relatively straightforward opportunities for research, outcome evaluations that would be of benefit to practising clinicians were few in number. There are some summaries of 'best practice' that have been published in the grey literature such as the UK Department of Health's *Best Practice in Managing Risk*.[89]

Indicators of deterioration in mental state in inpatient settings

The literature review identified the following major indicators of deterioration in inpatient settings:

- self-harm[92-94]
- suicidality[95-97]
- aggression and violence[92 98 99]
- agitation and anxiety[89 100]
- social withdrawal[89] and self-neglect[89]
- depression[89 101]
- psychosis[102]
- medical deterioration including delirium.[103]

Of these, most papers were concerned with monitoring and preventing self-harm, suicide and violence.[104] Papers related to suicide predominated over those related to self-harm and violence. There were also relatively few studies referring to clinical indicators that could be utilised by clinicians in the short term to alert them to pending incidents.

Appendix A:
Literature Review

Patient characteristics and other risk factors

The literature review identified studies that focused on factors associated with mental deterioration through a variety of lenses including the following:

- actuarial and epidemiological[99 105 106]
- patient diagnosis and characteristics[97-99 105 106]
- patient situation including history, life events and relationships[92 95 96 99]
- environmental[97 106 107]
- staff attitudes[95 96]
- clinical quality systems[93 106]
- organisational management.[104]

A Danish study reported the most common diagnoses associated with inpatient suicide to be affective disorder (42%), schizophrenia spectrum disorder (27%) and personality disorder. Previous self-harm was also noted as an important factor.[96]

Stewart et al. identified verbal aggression, property damage prior to incidents of self-harm, alcohol consumption on the ward and attempts to abscond or actual absconding as critical clinical risk factors, along with a prior history of self-harm and depressive symptoms.[93] Busch, Fawcett and Jacobs noted the importance of agitation and anxiety prior to inpatient suicide with these signs occurring in 79% of inpatients in the week before their suicide.[108]

Some literature referred to high frequency periods when suicide is likely to occur, such as during the first week of admission or the period when admission has become prolonged.[93 97 100] They also referred to specific times of the day, with suicides occurring more frequently during afternoon shifts. The research also identified handover periods as vulnerable times when adverse incidents are more likely to occur.

There was surprisingly little literature reviewed referring to environmental factors associated with mental state deterioration and the risks associated with these factors. Nevertheless various references were made to the importance of ward layout with regard to line of sight, electronic observation, the elimination of hanging points and staff access to all ward areas.[93 97 107]

Observation and the therapeutic relationship

Paterson et al. emphasised the importance of partnership with patients and understanding how patients understand and interpret their situation.[109] Lynch et al. also stressed the importance of:

> '... a therapeutic alliance which begins during the initial assessment process at admission and continues throughout hospitalisation, which may encourage patients to divulge information vital in determining suicidal risk factors.'[95]

Paterson et al. suggested that potential harm can be mitigated by paying attention to how people define the causes of their suffering, and by working to understand and address these causes with the patient.[109] The researchers further suggested that checklists and an exclusive focus on risk are unlikely to mitigate risk; they are, in fact, likely to increase risk. Slade considered that a focus on risk:

> '... fosters a cycle of disengagement (the service is focused on what it thinks matters, rather than what the person thinks matters) and compulsory intervention to reduce risk. Inadvertently, this can be a feature in services which aim to provide the highest quality of care. Detailed assessment processes involving consideration of multiple components of risk meet the clinical need for best practice, but the message they can inadvertently send is that they are there to stop the person from doing things, rather than support the person towards a better life.'[52]

Slade concluded that involuntary interventions including seclusion and an undue reliance on sedation are antithetical to both risk management and recovery because they can reduce opportunities for patients to recognise and self-regulate emotions and their behavioural sequelae.[52]

In terms of the value of 'close observations', the literature indicated that while formal observation systems of people at risk were still mainstream, such processes have failed ' to demonstrate a direct correlation between the action of formal observation and the prevention of adverse patient outcomes.'[110]

Kettles and Paterson found that guidelines for observation were simply not being followed (despite specific staff training) and that there was a trend to flexible, low level observations which staff viewed as 'more tolerable' for the patient.[111] Studies such as this lead to the conclusion that a system of observation that is impersonal and lacking in therapeutic engagement between the patient and the observing staff members is likely to fail.

Kanerva et al. in their categorisation of factors connected to patient safety, emphasised the lack of attention given in the literature to the patient role in terms of care planning according to patient preferences and 'how to make patients more equal participants in promoting patient safety'.[104] This is an important consideration in the current context of reorienting practice and service delivery in line with recovery principles.

Processes and instruments to identify deterioration and reduce risk

Risk management of self-harm, suicide and aggression in inpatient settings relies on:

- traditional processes of unstructured clinical assessment, that is 'a judgement made by the clinician based on the knowledge of the client's history, expertise, prior experience and intuition'[92]
- the removal of articles that could be used for harm
- stratified care level nursing observations
- handover processes
- multidisciplinary clinical review.[112]

These processes may be complemented by the regular use and reporting of reliable and standardised risk assessment instruments at times when changes of clinician, medication, and leave status occur. These points are consistently identified as vulnerable periods for self-harm and/or suicide.[113]

Other processes and clinical systems identified included multi-disciplinary team functioning and a positive and pro-active staff culture with staff prepared to be, as Bowers et al. suggest, 'caringly vigilant and inquisitive'.[113]

A variety of instruments for establishing individual risk and detecting mental state deterioration exist across a mix of parameters. While there are promising examples in terms of identifying particular kinds of risk, such as aggression, in many cases implementing these tools in busy general inpatient settings has proven impractical.[94][98] Providing and implementing rapid, valid and reliable indications of deterioration in mental state in these settings remains problematic. As a result, an undue focus frequently occurs on one or another aspect of mental state at the expense of others.[105] Regardless, there are a considerable variety of instruments for assessing the risk of self-harm, suicide and violence listed in the papers reviewed.[88][89][98][100][101]

There are recent and comprehensive reviews by the UK Department of Health[89] and Justice Health in NSW.[114] Both reviews make valuable recommendations for assessment and management of risk and/or violence. For example, the Justice Health document provides a framework for risk assessment and management. This includes guidance about:

- important sources of information
- types of assessment (mental health assessment and anamnestic assessment)
- types of risk factors (static, dynamic, case specific and protective)
- formulating the level of risk and identifying early warning signs
- managing the risk (decreasing risk factors and enhancing protective factors and strengths.

At best, instruments for assessing the risk of self-harm, suicide and aggression supplement the implementation of quality processes referred to in the 'grey literature'.[89] Risk assessment instruments provide a framework to assist clinicians who are making judgements about a patient's mental state to systematically consider the comprehensive range of static and dynamic factors contributing to this at any point in time.[98]

Appendix A:
Literature Review

It should be noted that a range of other innovative approaches to identifying risk were found in the literature review. These include the use of an early warning signs journal in an adolescent inpatient unit,[102] and the mental health thermometer developed by Newnham et al.[27] This utilises patients' regularly self-recorded ratings of their wellbeing on electronic devices.

The introduction of peer workers to support patients and their family and close friends has also shown promise in randomised controlled and other studies.[43 48 49] There is evidence that peer support is important in influencing the recovery culture of acute inpatient units and potentially reducing risk. Peer-run alternatives to admission to acute psychiatric units as well as peer-run services in acute settings have also demonstrated positive outcomes.[51]

. . . .

Challenges in recognising deterioration and managing potential adverse outcomes in mental state in inpatient settings

Substantial work has occurred to develop systems and instruments to assess and manage the risk of serious incidents in acute mental health inpatient settings. This work tends to fall short of conceptualising the link between deterioration in mental state and adverse events, and the development and implementation of an evidence base for practical, reliable and valid methods of recognising deterioration in mental state and managing the potential for adverse outcomes. The findings of the literature review point to a number of key challenges including the complexity of both human behaviour and the assessment and prediction of risk; and the practicalities involved in implementing reliable and valid systems of risk management.

Firstly, the assessment, management and prevention of deterioration in mental state is a complex human task. There is a need to work to avoid tragedy while also acknowledging the impossibility of completely averting it. It is also important to acknowledge the limitations of the current state of knowledge and practice. Advances in conceptualising the tasks involved have been assisted by the separation of long-term factors associated with risk of self-harm, suicide and violence from the short-term triggers of such behaviour. The identification of long-term factors does have utility for identifying groups of people who are at higher risk than others and should form a greater part of routine risk assessment and management than is commonly the case in practice. However, the lens of long-term factors is not useful for predicting individuals at risk in the short term.

Short-term factors such as alcohol use, levels of agitation,[108] anxiety, and depressed mood are important in identifying individuals at risk but have shortcomings in predicting whether individuals may be at imminent risk of harming themselves or others.[112]

Large et al. expressed concern about how such information is interpreted and utilised, and argued that there is danger of studies over-estimating current ability to predict mishap and therefore obscuring approaches that could make a difference in risk management.[115] Large et al. noted that depressed mood and a prior history of self-harm are the only well-established independent risk factors for inpatient suicide.[116] They suggest that:

> '… to use these risk factors to classify patients as being at high or low risk would prevent few, if any, suicides, and would come at considerable cost in terms of more restrictive care of many patients and reduced level of care available to the remaining patients.'[116]

A further cost is likely to include impediments to clinical and personal recovery.

A study by Paterson et al. reached similar conclusions and argued that:

> '...in attempting to prevent suicide by inpatients many services in response to perceived pressure to deliver the undeliverable i.e. a service free from suicides and in fear of the consequences of such events in terms of public approbation and potential litigation appear to have adopted a peculiarly inappropriate interpretation of the concept of risk in relation to suicide.109

The result in some services, the authors suggested, has been 'the increase in mechanical strategies to manage risk rather than engaging constructively with the patient to help them find alternative coping strategies to understanding and managing their drive to self-harm and/or suicide'.[109]

In an effort to reduce the use of seclusion and restraint, the Victorian Office of the Chief Psychiatrist's Creating Safety Project promotes the Violence Free and Coercion Free Mental Health Treatment Environments for the Reduction of Seclusion and Restraint training resources developed by the USA National Technical Assistance Centre of the National Association of State Health Program Directors.[64]

Briner and Manser reported that current mental health organisational risk management practices frequently lack effectiveness.[117] The findings of the studies of Briner and Manser, Paterson et al. and Large et al. suggest that the development of safer hospital environments and improved systems of safe and effective care, rather than a heightened focus on risk assessment, are more likely to reduce the suicides of psychiatric inpatients.[109 116 117]

Studies such as these reflect the paucity of reliable and valid data relating to risk assessment and management. They also highlight the complexities involved in implementing practical systems for monitoring, communicating and intervening in situations where people are at risk because of a deterioration in mental state.

This literature review identified significant gaps between what is expected and what occurs in practice and highlights the challenges of implementing evidence-based policies and procedures. Gilbert, Adams and Buckingham examined the relationship between risk assessment and risk management in four acute inpatient wards in two different UK mental health trusts and emphasised the 'inextricable link' between the two processes. Their study noted considerable variability and gaps in the risk assessment and management processes related to the use of different instruments and processes; confusion about where to record data; disparate sources of information used by nurses when assessing risk; lack of time to record the patients' perspectives and information from colleagues; and lack of confidence and possibly training in risk assessment.[118] Views expressed in submissions and survey responses to this Scoping Review concurred with this finding.

The framework reports of the UK Department of Health and NSW Justice Health provide approaches that could serve as a basis for a national framework for assessing and managing the risks associated with deterioration in the mental state of mental health inpatients.[89 114] However, they should be supported by service evaluations of comprehensive systems of care that address the needs of the deteriorating mental health patient in a way that is practical, effective, humane and consistent with recovery-oriented and trauma informed care.

Appendix A:
Literature Review

Summary of findings and conclusions

Despite an extensive review of the available literature, few systematic studies have been published that provide guidance and instruments specifically focused on recognising and responding to deterioration in mental state. Outcome evaluations that would be of benefit to practising clinicians are few in number. Studies identified as being relevant largely focus on the identification and management of risk and the prevention of self-harm, suicide and violence.

The findings of the literature review concerning the major indicators or markers of deterioration in mental state were consistent with views expressed in submissions and survey responses. They emphasised, for example, the importance of self-harm, suicidality, agitation, anxiety, withdrawal, aggression and violence.

Little was found in the literature concerning environmental factors associated with deterioration in mental state. A small number of studies did however discuss the importance of ward layout and environment.

Significant gaps were identified in the literature concerning the provision and implementation of instruments that enable rapid, valid and reliable assessment, identification and tracking of deterioration in mental state in acute inpatient settings.

Though limited in number, there were studies that emphasised the importance of understanding the patient's perception of and reaction to the situation and experience of hospitalisation. Other emphases included the importance of the therapeutic relationship and of maximising the patient's involvement in assessment and care planning.

Despite the emphasis on the need for close observation and multi-disciplinary team functioning, the literature suggested that guidelines for these practices were not uniformly followed or implemented.

Several studies suggested that the focus on risk and its prevention is possibly contributing to counterproductive and overly restrictive environments and practices. There was evidence to suggest that a focus on safer and more recovery-oriented hospital environments and clinical systems may more effectively assist the prevention and management of adverse events associated deterioration in mental state.

Whilst there are promising and innovative approaches being developed (including, for example, early warning signs journaling, the mental health thermometer and the deployment of peers and peer-run programs), there is currently a paucity of reliable and validated data relating to the assessment and management of situations where people are at risk because of deterioration in their mental state.

Appendix B:
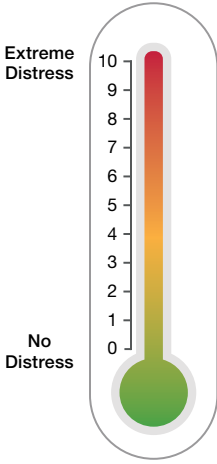## Tools and strategies for the early recognition of deterioration in mental state

B

Tools and strategies for the early recognition of deterioration in mental state

Item	
Indicators of Psychiatric Deterioration	**Description** A clinician-reported tool developed by NSW Health South Western Area Health Service (SWAHS) to assist staff to recognise when a person's mental condition is deteriorating. The selected indicators include: agitation, sleep disturbance, mood disturbance – especially irritability, changes in behaviour – especially hostility and aggression, increased use of PRN medication, isolation, withdrawal and failure to recover. Indicators were also identified for community settings.
	Source Nick O'Connor, Clinical Director, North Shore Ryde Mental Health Service, 2013 (personal communication)
	Relevance The indicators selected are consistent with those reported in the literature and with information provided to the Scoping Review. The tool, used widely in public mental health services throughout South Western Sydney, is anecdotally considered clinically useful.
	Issues/comments Not yet evaluated or validated. A system is yet to be developed for electronically recording, tracking and flagging changes.
Mental health triage scales and tools e.g. Australasian Triage Scale (ATS)	**Description** The ATS has five levels of acuity from 'immediately life-threatening' (category 1) to 'less urgent' (category 5). The ATS includes a mental health triage tool providing typical presentations and general management principles relating to each triage category. The *NSW Health Mental Health for Emergency Departments Reference Guide* includes a tool to illustrate the six essential clinical processes of assessment and management of people with mental health presentations in emergency departments – SACCIT S – safety A – assessment C – confirmation of provisional diagnosis C – consultation I – immediate treatment T – transfer of care. The guide acknowledges that these clinical processes will vary from site to site, depending on local practice and contingencies.
	Source *Emergency Triage Education Kit*, 2013[119] South Eastern Sydney Area Health Service (SESAHS) Mental Health Triage Scale, 1999[22] *NSW Health Mental Health for Emergency Departments Reference Guide*, 2009[23]

Appendix B:
Tools and strategies for the early recognition of deterioration in mental state

Tools and strategies for the early recognition of deterioration in mental state

Item	
Mental health triage scales and tools e.g. Australasian Triage Scale (ATS) *(continued)*	**Relevance** Because of the general nature of the ATS Mental Health Tool, specialist mental health triage scales have been developed across Australia to aid emergency staff without extensive training in the assessment and management of people with a mental illness. One example is the SESAHS Mental Health Triage Scale. The NSW Health reference guide for mental health in emergency departments incorporates this Mental Health Triage Scale.
	Issues/comments Research suggests that the mental health descriptors in the ATS are not as reliable as a specialised mental health triage scale.[120] This has implications for clinical practice on two levels. First, it affects the initial triage assessment in the emergency department and the ability for mental health clinicians to respond in a timely manner. This will have an impact on clinical outcomes. Second, the use of the mental health triage criteria in the ATS may not fully represent workloads and performance in the emergency department.
Self-reported tools for distress and mental health state e.g. Distress Thermometer and Mental Health Thermometer Extreme Distress — 10 9 8 7 6 5 4 3 2 1 0 — No Distress	**Description** The Distress Thermometer used in many oncology, maternity and rehabilitation wards has been validated by both international and Australian Studies as reliable self-report tool for identifying psychological distress along a 10-point scale. An easy-to-use electronic system dubbed the 'mental health thermometer' has built on the concept of the Distress Thermometer to develop a touch screen self-report application suited to acute psychiatric settings.[26]
	Source Snowden et al., 2011[25] Newnham et al., 2012[27]
	Relevance The Mental Health Thermometer, which takes the form of a computerised questionnaire, is operating at the West Perth clinic with reported good results and reported to be helping to identify patients with mental illness who could be at risk of suicide and self-harm.
	Issues/comments Studies to validate the Mental Health Thermometer are proceeding at the University of Western Australia.

Tools and strategies for the early recognition of deterioration in mental state

Item	
Electronic health records	**Description** The introduction of personally controlled electronic health records (PCEHR) in Australia provides an opportunity for people with mental illness and their clinicians to work together. Information shared in the PCEHR can help to ensure the person's understanding of their own illness, their preferences and wishes inform decisions when hospitalisation is required and when they may not be in a position to clearly communicate this information.
	Source Lester et al., 2004[29]
	Relevance Lester et al. suggested that the more active a person is in decisions made about their care and treatment whilst in hospital and the more their treatment preferences and choices are known, understood and respected, the more engaged people will become in self-identifying and self-reporting early signs of reduced mental health.[29]
	Issues/comments The move toward electronic medical records in many public and private health services across Australia potentially provides a foundation for improving the early recognition of response to deterioration in mental state by improving accuracy.
Protected Engagement Time (PET)	**Description** PET involves re-organising available clinical time in acute mental health units to ensure there is time dedicated to actively engaging patients in a therapeutic working relationship as well as in therapeutic interventions and activities.
	Source Lamont, 2010[30]
	Relevance Lamont reported that a trial of PET combined with the support of a Mental Health Liaison Nurse enabled nursing staff in two general hospitals in South Eastern Sydney Area Health Service to better identify and meet the psychological needs of these patients, and ultimately develop a stronger nurse patient relationship.[30]
	Issues/comments PET is consistent with mental health recovery literature that emphasises the need to maximise rapport between clinician and patient as well as the clinical team's knowledge and understanding of the patient and family.

Appendix B:
Tools and strategies for the early recognition of deterioration in mental state

Tools and strategies for the early recognition of deterioration in mental state

Item	
Consultation Liaison Psychiatry Services (CLPS)	**Description** CLPS are provided by specialised mental health teams within general hospital settings including emergency departments, maternity and oncology wards. CLPS aim to provide mental health services to patients in general hospitals who may have significant mental health problems or clinically significant distress associated with their medical illness. Various models are in operation across Australia. In Queensland, for example, Consultation Liaison Psychiatry Services perform the following distinct functions: • provision of timely specialist mental health assessments of patients with the aim of improving the recognition, response and management of mental health problems • provision of specific advice on the management of mental health problems to clinical teams within the general hospital • facilitation of linkages and continuity of care between the general and maternity hospital and mental health services.
	Source Metro South Addiction and Mental Health Services, Queensland Health[31]
	Relevance Available evidence suggests that CLPS are ideally positioned to assist in the identification of deterioration in mental state. The model potentially supports improvement in the systemic management of mental health emergencies and to improvement in the timeliness and quality of care provided to people presenting with mental health conditions.
	Issues/comments In a submission to the Scoping Review, the RANZCP expressed the view that consultation-liaison psychiatry services should be an integral part of medium and large hospital health services. There is a need for further evaluative studies that compare different models and incorporate objective evaluation of patient and staff outcomes.
Mental health clinicians based in emergency departments	**Description** In recent years there have been numerous and different trials of mental health practitioners being located in Australian emergency departments. A common model involves a psychiatric nurse (clinical nurse consultant) being available in emergency departments to assess and manage patients presenting with mental health problems and to train and support emergency health professionals. The mental health clinicians also support the implementation of mental health triage tools within emergency settings. The role entails ensuring equity of access to medical treatment for people with mental health concerns. Nurses, doctors and social workers make referrals verbally. In some models, the mental health clinicians also provide consultation liaison services to other settings within the general hospital.

Tools and strategies for the early recognition of deterioration in mental state

Item	
Mental health clinicians based in emergency departments *(continued)*	**Source** Victorian Department of Human Services, 2007[32] National Institute for Health and Care Excellence, 2004[121] Wand and White, 2007[33] Sinclair et al., 2006[122]
	Relevance The report of the Victorian Emergency Department Mental Health Service Mapping discussed the identified benefits of this strategy: *'All of those interviewed believed the allocation of mental health clinicians to the emergency department has not only addressed resource shortages, but has:* *Significantly improved relationships between the emergency department and the broader inpatient and community-based mental health program;* *Increased awareness of the needs of people with mental illness in the emergency department.* *Increased the confidence levels of emergency department workers (triage staff, medical staff and nurses);* *Contributed to a change in emphasis from containment to treatment of people who have presented with mental health issues.'*[32] The UK National Institute for Health and Care Excellence recommended that mental health professionals should be integrated into emergency departments and argued that their presence improves psychosocial assessment at the point of triage and better targets training for non-mental health professionals working in the emergency department.
	Issues/comments Patients who present to emergency services in need of psychiatric services have a unique set of needs and can present particular diagnostic and management challenges for emergency staff. Those with a known psychiatric diagnosis are at risk of having physical healthcare needs overlooked whilst those presenting with injuries or physical illness are at risk of having mental health issues overlooked. Resulting demands on staff time and facilities together with the general growth in emergency attendances highlighted the need for specialist mental health knowledge and skills to be available within emergency departments. There is a need for further evaluative studies that compare different models and incorporate objective evaluation of patient and staff outcomes. Such models need to ensure that emergency departments and local mental health services jointly plan the delivery of appropriate services and ensure that psychiatric nursing staff do not become professionally isolated from their mental health colleagues.

Appendix B:
Tools and strategies for the early recognition of deterioration in mental state

Tools and strategies for the early recognition of deterioration in mental state

Item	
Specialist mental health emergency care	**Description** Various terms have been used to describe different models of specialist mental health emergency treatment and care services that have been developed in close to proximity to or within Australian emergency departments throughout the last decade. In Victoria there are psychiatric assessment units (PAPUs) and mental health short-stay observation units (MHSOUs); in Queensland there are psychiatric emergency centres (PECs); and in NSW there are psychiatric emergency care centres (PECCs). For example, the PECC at St Vincent's Hospital in Sydney is a six-bed specialist unit, and sits on a service continuum that aims to avoid prolonged hospital admission and/ or premature discharge into the community. The focus is to provide continuing detailed assessment and deliver therapeutic interventions over a 1–2 day period, ensuring a rapid pathway to specialist mental health assessment and care and ensuring a rapid return to community or family care with an optimum level of functioning. The PECC's mental health clinicians work collaboratively with the general emergency team and maintain strong links with community mental health teams, general practitioners and non-government agencies. **Source** Frank et al., 2005[35] Fawcett, et al., 2006[123] St Vincent's Mental Health Service, 2012[124] **Relevance** Frank et al. reported on evaluation of the first 24-hour Psychiatric Emergency Centre established in Queensland at the Royal Brisbane and Women's Hospital. The local area Acute Care Team is responsible for the service that is described as an acute assessment area based in the Emergency Department. At the time of the evaluation, the service was assessing and treating over 7200 presentations per year. Frank et al. concluded that the co-location of the Psychiatric Emergency Centre and Emergency Department has created a unique model of service delivery and effective working relationships between the two services.[35] Frank et al. reported that the model improves clinical care by providing multiple benefits for patients and the Emergency Department through direct access to specialised mental health staff, early mental health responsibility for patients and reduced access block.[35] **Issues/comments** Aspects of the services that worked well included the rapid assessment and management of acutely unwell people by the PECC *nurses*. One problem appears to be the capacity of the service to address social issues involved with repeat presentation and the management of people with behavioural, alcohol, substance intoxication or self-harm behaviours.

Tools and strategies for the early recognition of deterioration in mental state

Item	
Emergency department specialist drug and alcohol responses	**Description** A pilot of drug and alcohol brief intervention teams (DABIT) commenced in 2013 at Cairns Base Hospital, Gold Coast Hospital and the Royal Brisbane Hospital. The pilot was in response to evidence that many people with early alcohol and drug problems are not in treatment and that people presenting to emergency departments or admitted to general hospitals often have alcohol and drug problems as contributing factors. Previous evidence has shown that these people can benefit from brief interventions about their substance use. A quick and easy screening of alcohol and drug use has been introduced into routine clinical care for all presentations at each of the three sites. People screening positive are offered a brief intervention by the on-call DABIT staff, who provide the intervention at the time or offer a rapid follow-up appointment. The DABIT team members are also up-skilling emergency department staff and providing a ready link between emergency departments and Drug and Alcohol Services including detoxification units.
	Source Cameron et al., 2010[125]
	Relevance Initial analysis of data collected is suggesting that that by providing targeted brief interventions, the likelihood of people progressing from substance use to substance dependence can be reduced, as can be the likelihood of re-presentation at emergency departments within the next 12 months.
	Issues/comments Research and evaluation is ongoing: Mark Daglis, Addiction Psychiatry and Director of the Alcohol and Drug Service, Royal Brisbane Women's Hospital.
Clinical handover strategies	**Description** Care zoning is a structured approach to clinical handover. There are various iterations, but common to all is that at handover and team meetings, each patient is discussed one by one and graded according to a traffic light system. Green zone – all is going well. Orange zone – there is some concern. The number of reviews, checks, visits and supervision is increased. RED zone – the person is deteriorating and care is escalated. The traffic light approach has been adapted for use in both hospital and community settings in the Northern Sydney Local Health District.
	Source Taylor et al., 2011[38]

Appendix B:
Tools and strategies for the early recognition of deterioration in mental state

Tools and strategies for the early recognition of deterioration in mental state

Item	
Clinical handover strategies *(continued)*	**Relevance** The traffic light approach has been adapted for use in the community in the Northern Sydney Local Health District. Though still being adapted, the traffic light approach is reported to be a useful tool for enabling clinical teams as a whole to review and make decisions about a person under their care.
	Issues/comments More research is required to evaluate clinical handover tools and strategies used in acute healthcare settings to monitor the mental state of patients.
Mental health follow-up from emergency departments following suicide risk	**Description** In response to the evidence that many people who present to emergency departments either suicidal or deliberately self-harming are neither admitted to hospital nor systematically followed-up, the Department of Health, Queensland Health and General Practice Queensland collaborated to enhance follow-up care for people at risk of suicide. The project was implemented at the Royal Brisbane and Women's Hospital and Princess Alexandra Hospital Emergency Departments. The project aimed to develop an assertive follow-up system for each at risk person who is a) discharged back into the community from emergency departments; and b) not diagnosed with a serious mental illness. Some key features of the service design included: • clear and effective linkages between two Divisions of General Practice (now Medicare Locals), general practice, specific clinical staff within hospital emergency departments and relevant community based services • the creation of new clinical positions in the respective emergency department • the creation of two non-clinical positions – one in each of the divisions of general practice.
	Source Australian Health Ministers' Advisory Council, 2010[39]
	Relevance A key role of the non-clinical positions was to develop effective liaison between hospital and primary/community care services, enabling appropriate treatment and follow-up of at-risk patients following presentation to and/or discharge from emergency departments. Agreed and shared written protocols, procedures, communication and governance processes were established.
	Issues/comments Results are not yet available. It is important to note that the trial was focused on the period immediately following discharge from an emergency department, which is known to be period of heightened risk of suicide and self-harm.

Tools and strategies for the early recognition of deterioration in mental state

Item	
Mental health emergencies and indigenous peoples and communities	**Description** Aboriginal and Torres Strait Islander mental health workers have been employed as members of the clinical team in various acute mental healthcare settings (e.g. St Vincent's Hospital Melbourne, Mental Health Service). Aboriginal Hospital Liaison Officers are also employed to provide support upon admission, during hospitalisation and in preparation for discharge. An example of a program targeting Indigenous people is the Hospital Admission Risk Program (HARP) that operates in publicly-funded hospitals in Victoria. HARP is a coordinated multidisciplinary team approach to managing people with complex care and chronic disease including long-term mental conditions. It targets people who either frequently present, or who are at risk of presenting, to hospital. It is a partnership between public hospitals and community organisations. It provides short-term coordination, case management, and patient education. It links people to longer-term community supports where appropriate. Aboriginal Hospital Liaison Officers are employed in a number of the HARP programs including at St Vincent's. In New Zealand, *Te Rau Whakawhānui* – the Māori Mental Health in Emergency Departments Collaborative Guidelines and online learning – aims to extend the capacity of emergency departments to become more informed and involved in recognising and responding to deterioration in mental state and mental health problems and disorders among Māori patients and communities. The project's key strategy was the development and roll out of a national on-line learning platform that supports locally driven learning through mentor support.
	Source Metropolitan Health and Aged Care Services Division, Victorian Department of Human Services, 2006[126] Ihimaera and McClintock, 2007[42]
	Relevance The evaluation of the HARP across Victoria demonstrated that, in general, HARP patients experienced fewer emergency department attendances, fewer emergency admissions and fewer days in hospital. Available evidence suggests that the HARP can assist emergency departments to respond in a timely and appropriate manner to those who otherwise would be frequently admitted to hospital with complex care and chronic disease, including acute exacerbation of a mental condition. The deployment of Aboriginal Health Workers is an important characteristic and assists emergency departments to provide a more culturally appropriate response. Ihimaera reports that a result of *Te Rau Whakawhānui* is the recognition that no single service is responsible for the Māori mental health emergencies. Rather emergency departments, primary and secondary mental health, and Māori Mental Health services are collaborating to develop locally relevant approaches that reflect cross-service, multi-disciplinary models in providing emergency mental health services.
	Issues/comments Nil

Appendix B:
Tools and strategies for the early recognition of deterioration in mental state

Tools and strategies for the early recognition of deterioration in mental state

Item	
Deployment of peer workers (both consumers and family workers) and peer-run services	**Description**
	Peer workers are employed in roles that require them to identify as having lived experience of mental health issues either personally or in the life of a family member or friend. In Australian hospital settings, peer workers are employed to work in acute and non-acute wards, rehabilitation wards and consultant liaison teams. As well as working with adults, peer workers are employed to work with older people such as Older Persons Mental Health Service, Calvary Hospital, Canberra) and young people (Orygen Youth Services, Melbourne).
	FSG Australia provides a peer operated residential service, Peer Engaged Assisted Recovery Lifestyles at Maroochydore as an alternative to hospitalisation or as a step up to or a step down from acute hospitalisation. CAN (Mental Health) Inc., a peer-run organisation, operates Hospital to Home to provide practical assistance and peer support within the first six weeks of discharge from two Sydney metropolitan psychiatric inpatient units – Liverpool and Campbelltown, South Western Sydney.
	Source
	Sledge et al., 2011[43]
	Repper and Carter, 2011[47]
	O'Connell et al., 2010[48]
	Trachtenberg et al., 2013[49]
	Sells et al., 2006[45]
	Walker and Bryant, 2013[50]
	Greenfield et al., 2008[51]
	Slade, 2009[52]
	Health Workforce Australia, 2013[44]
	Relevance
	The strategies and approaches that show most promise are focused on critical, known points of risk and include:
	• arrival at emergency departments
	• early period of admission to a mental health unit
	• transfer from one acute setting to another e.g. medical ward to acute mental health unit
	• handover periods
	• preparation for and lead up period to leave or discharge
	• period immediately following discharge from emergency department or mental health unit.
	Issues/comments
	There is a need for further research and evaluative studies in relation to the efficacy of the deployment of peer workers and the operation of peer-run services within Australian acute healthcare settings.

Appendix C:
Tools and strategies to manage adverse outcomes associated with deterioration in mental state

C

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Physical screening tool for a mental health patient in an emergency department	**Description** One example is the NSW Emergency Care Institute's rapid clinical physical assessment tool. Its purpose is to: • determine whether presenting behavioural disturbance or psychological distress is caused by a physical (medical) illness or injury • ensure that disposition is appropriate (that is that the presentation is primarily psychiatric and the patient is physiologically stable). The tool includes an assessment form that has been developed for use in emergency departments to support the medical assessment of mental health patients.
	Source Ieraci, 2011[63]
	Relevance It is a 'single point in time' screen to rule out acute physical conditions requiring immediate treatment.
	Issues/comments It is important to note that the tool does not guarantee against acute changes or future exacerbations of chronic illness.
Risk assessment and scales for assessing and managing escalating behaviours and levels of danger	**Description** The module on Identifying and Managing Seclusion and Restraint Risk Factors A Core Strategy: A Primary Prevention Tool used by the Victorian Creating Safety Program provides a discussion of individual, environmental and medical factors risk factors relevant to the task of managing the potential for adverse events arising from an escalation of distress and aggression. Environmental triggers identified include frustration and anger precipitated by the enforcement of hospital policies, a sense of unfair treatment and intervention, and long wait times or problems in the health care system. The tool presented, the Lalemond Behaviour Scale, provides staff with a common language in which five levels of behaviour are identified on a continuum from the lowest to the highest level of concern. The Scale provides a structure that encourages clinical judgement in conjunction with a standardised checklist of observations. It also provides a way for staff to hear the second level messages of patients. The five levels and their associated messages are: agitated (I'm distressed); disruptive (pay attention or listen); destructive (losing control; dangerous – lost control); and lethal (stop me).
	Source National Executive Training Institute, 2005[127]

Appendix C:
Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Risk assessment and scales for assessing and managing escalating behaviours and levels of danger *(continued)*	**Relevance** Provides clinicians with a tool to guide them in matching the appropriate responses to the presenting behaviour. The tool also assists clinicians to identify and then focus on alleviating underlying distress. The tool promotes communication and rapport building at the earlier levels rather than later when exertion of control and authority might be indicated. The emphasis is also on a team approach to assessment, clinical decision making and care management.
	Issues/comments Nil
Tools for engaging patients in the self-management of the potential for adverse events	**Description** Many public mental health services have introduced wellness and recovery plans (WRAP). These tools seek to develop a collaborative relationship between clinician and patients whereby self-management skills and self-agency are supported. The tools assist people to assess their own progress and problems, set goals for themselves and identify problem solving support they would like to receive. WRAP applications for iPhones and iPads are now available. The applications enable people to view, manage, update and share their plan as they wish. Early signatures/signs tools and relapse prevention plans are promoted to support a person to identify the general as well as idiosyncratic symptoms that occur in a particular order over a specific period, and that are indicative of an impending relapse or recurrence of acute exacerbation for that person. Mental health advance directives are being used to promote a partnership approach between a patient and clinicians during a mental health crisis including during hospitalisation in an acute mental health setting. Mental health advance directives, also referred to as advance care statements or agreements, allow people to express in advance their preferences for what they want to happen during a future mental health crisis.
	Source Wellness and Recovery Plans (WRAP): Copeland, 2013[66] Slade, 2009[52] Cook et al., 2012[128] Copeland, 2013[65] Relapse prevention signatures, advance care directives: Scheyett et al., 2007[67] Slade, 2009[52] Henderson et al., 2004[68]

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Tools for engaging patients in the self-management of the potential for adverse events *(continued)*	**Relevance** There is evidence of the benefits of self-management approaches in the treatment of acute mental illness including depression, anxiety and psychosis. International research suggests that the use of advance directives reduces rates of compulsory hospitalisation and other coercive interventions.
	Issues/comments Advance care directives are not legally binding in Australia though a number of states, including Victoria and the ACT, are moving toward the inclusion of provisions for advanced care agreements in their mental health statutes. A number of public mental health services have encouraged the use of advanced care directives for over a decade. For example, in the ACT consumer stakeholder groups collaborated with ACT Health to develop and trial an advanced care statements template and resource materials. Included were peer-led processes to support people to complete, communicate and use the statements in collaboration with key clinicians.
Safety plans	**Description** Safety plans are collaboratively developed by the patient and clinician. They aim to prevent a crisis and avoid the use of restraint and/or seclusion. Individual safety plans are known by many different names including Crisis Prevention Plans, Safety Tools, and Personal Safety Plan etc. Safety plans are a therapeutic process, a partnership of safety planning and a task that is trauma sensitive. A safety plan is tailored to the needs of each individual and is personally owned. They should be written in easy-to-understand language. Safety plans specify a person's triggers, early warning signs and strategies for calming and managing and minimising stress and distress. The plans frequently specify what does not help and what actions and interventions should be avoided. A person's preferred strategies in an extreme emergency and preferred de-escalation strategies in these situations are also specified. These latter strategies often focus on minimising trauma and avoiding re-traumatisation.
	Source Henderson et al., 2004[68] National Executive Training Institute, 2005[64]
	Relevance The research suggests that safety plans can help to ensure a partnership relationship is possible between a patient and clinical team during a mental health crisis, including during hospitalisation in an acute mental health setting. A partnership approach increases the likelihood that clinical staff will have the information they need to recognise deterioration or escalation of distress at an early stage and provide appropriate, effective and safe treatment and care. By supporting self-determination and engagement, these tools also assist with managing the potential for adverse events associated with deterioration in mental state.

Appendix C:

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Safety plans *(continued)*	**Issues/comments** It is important that the content of safety plans is communicated and readily accessible in a crisis/emergency or upon a person's admission to hospital. It is also important that a person is supported to 'practice' their strategies ahead of time and in case a further crisis occurs.
Tools for engaging families	**Description** Developed to complement the WRAP by Liddy of Timaru, South Canterbury, New Zealand, the Family Recovery Assistance Planning Tool and similar tools have been implemented in a number of Australian acute mental health inpatient units including St Vincent's Mental Health Service in Melbourne. It is a tool for engaging families and friends from the earliest possible point in the admission process. The plan focuses on the recovery, wellbeing and support of family members as well as on utilising their relationship with and understanding of the patient to support assessment, treatment and recovery planning processes.
	Source Jones et al., 2007[69] St Vincent's Mental Health, 2012[129]
	Relevance The plan engages family and friends to help the clinical team to better understand the person, his/her usual state of health and functioning and her/his preferences and wishes. Families can also assist the clinical team to understand and recognise the early signs that may indicate deterioration in mental state.
	Issues/comments Nil

C

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Sensory modulation and de-escalation tools	**Description**
	A De-escalation Preference Survey is a tool that can be used to engage patients in identifying and sharing what works and what doesn't work for them. Essential elements for this process to work effectively include:
	• how the discussion is initiated – authentic interest, development of relationship, time spent
	• where discussion is initiated – calm, quiet space
	• continuously addressing the tool with the person and within the treatment team throughout the person's stay.
	Sensory or comfort rooms or low stimulus areas are considered to have a place in trauma informed care as well as in managing the potential for adverse events associated with deterioration in mental state in acute healthcare settings; particularly for avoiding seclusion and restraint. Sensory rooms are quiet and appealing spaces painted with soft colours and filled with furnishings that promote relaxation and calm.
	Hyson Green, a private mental health facility at Calvary Hospital in Canberra, has used architectural design to create a calming, peaceful environment, which maximises the benefit of space, light and the natural bush setting. A feature of the unit is its private courtyard, which encompasses a pergola-covered meditation pool. All of the single ensuite rooms incorporate full-height windows looking out into the surrounding landscaped bush setting.
	Source
	De-escalation Preference Survey – National Executive Training Institute, 2005[121]
	Environmental and architectural design to create calming and safe spaces – Calvary Private Hospital, Hyson Green, 2013[70]
	Sensory or comfort rooms or low stimulus areas – Champagne, 2006[71]
	Calming and de-escalating 'equipment', areas enabling physical activity and debriefing tools – Champagne and Stromberg, 2004[72]
	Relevance
	The resources for the De-escalation Preference Survey provided in the Creating Safety program suggests that the tool can be used to build therapeutic rapport and to support the person in practising, revising and using the their preferred strategies.
	A quality improvement study in the USA demonstrated that 89% of consumers reported decreased perceptions of distress after the use of the sensory room in one acute inpatient mental healthcare setting.[72]
	Issues/comments
	Champagne emphasises the importance of staff being trained in the use of sensory rooms as well as the rooms being available 24 hours a day.
	Areas enabling physical activity have also been designed into acute mental health inpatient settings including art rooms, sitting areas with rocking or gliding chairs, gardens, walking areas and areas furnished with gym and fitness equipment. Physical activity assists to counter or relieve agitation, frustration, anger and distress.

Appendix C:
Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Strengths-based approach to assessment, treatment planning and practice	**Description** Increasingly, strengths-based approaches to assessment, treatment and recovery planning are being introduced in Australian mental health acute inpatient settings. This approach requires clinical staff to validate a patient's personal meaning, to focus on the patient's strengths rather than deficits, and to encourage and foster personal responsibility for recovery rather than passive compliance.
	Source Chopra et al., 2009[73] Hamilton et al., 2010[74] Slade, 2009[52]
	Relevance There is evidence to suggest that focusing on a person's strengths and what is important to the person at the point of assessment can assist to reduce or diffuse conflict. It can also assist to build the therapeutic rapport that is essential to clinical staff being able to understand a patient's current mental state and their reactions to what is happening.
	Issues/comments The approach emphasises the collaborative development of treatment plans and personal recovery plans. By promoting a team-based and multi-professional approach, responsibility for clinical decision making is shared and the expertise of several clinicians is utilised rather than that of a single clinician working alone.
Staff training and skill development	**Description** The Victorian Office of the Chief Psychiatrist has adopted and introduced the Training Curriculum for Creating Violence Free and Coercion Free Mental Health Treatment Environments for the Reduction of Seclusion and Restraint.[127] Training programs provide instruction in a range of skills and practice approach's including sensory modulation; non-violent crisis intervention training; preventing and de-escalating distress and crises; self-calming and relaxation techniques; use of psychological therapies, such as mindfulness, cultural competency training, active assessment and observation; and collaborative approaches to treatment planning. NSW Health has the Mental Health Emergency Care (MHEC) online learning program. The program targets rural and remote areas and was developed in response to the often challenging nature of managing of mental health emergencies in rural and remote locations where emergency response times may be slower due to geographical distance and the limited availability of mental health clinical services.
	Source Hills et al. 2010[75]

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Staff training and skill development *(continued)*	**Relevance** The MHEC online learning program is designed to build on the existing skills of health workers to optimise the quality and safety of mental health care for people with acute mental health problems presenting to general hospitals in NSW. Clinical scenarios demonstrating typical, acute mental health presentations to a general hospital emergency department are a key focus. The course is designed to model collaborative practice in mental health emergency care.
	Issues/comments The MHEC's online medium was chosen in an effort to overcome travel difficulties and roster constraints faced by rural staff and logistical problems associated with distance, infrastructure and resources.
Approaches to reduce and, where possible, eliminate the use of seclusion and restraint	**Description** ACT Health, as part of the Beacon Site Project, has initiated a number of strategies over several years that have had a direct impact on the use of seclusion. Seclusion rates have progressively reduced to the low levels now reported. One strategy was the introduction of a Clinical Review Committee comprising clinical staff, consumer representatives and carer representatives. The Committee meets to review every episode of seclusion for systemic issues and to explore and provide feedback on how the use of seclusion might be avoided. The Victorian Office of the Chief Psychiatrist's resource, Violence Free and Coercion Free Mental Health Treatment Environments for the Reduction of Seclusion and Restraint, also provides substantial guidance and a number of tools and resources.
	Source Personal communication Peter Norrie – Director of Clinical Services and Chief Psychiatrist, Mental Health ACT National Executive Training Institute, 2005[64]
	Relevance Common or key features of the tools identified include: • promoting a patient's understanding of personal triggers and self-management of their condition and risks • equipping clinicians with practice skills and alternatives to the use of seclusion, mechanical restraint and repeated high dose PRN • enabling the creation or design of safe and calming environments. A further characteristic is that the identified tools promote collaboration between patients, their families and friends, clinicians and the organisation to avoid or to learn from the occurrence of an adverse event. Future planning for the avoidance of relapse or mental health crisis and for an agreed clinical response based on a patient's preferences and wishes is frequently featured.
	Issues/comments Nil

Appendix C:
Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Debriefing tools	**Description** Debriefing tools involve stepped or staged and rigorous analysis of an adverse or a critical event, to examine what occurred and to facilitate an improved outcome next time (manage events better or avoid event). They are used at two levels – in partnership with an individual patient and at the service level. Debriefing will answer a number of questions. These include: Who was involved? What happened? Where did it happen? Why did it happen? and, What did we learn? Root cause analysis is one type of system level debriefing tool and is a critical feature of any safety management system. It is an approach that is focused on the organisation of health care, rather than the assignment of individual blame, and is therefore likely to promote a serious approach to error reduction at the health service level and is in keeping with the principles of accountability. An example of a root cause analysis template can be found at: **http://docs.health.vic.gov.au/docs/doc/Conducting-a-RCA-information-sheet**
	Source Office of the Victorian Chief Psychiatrist
	Relevance Debriefing tools have a role in reversing or minimising the negative effects of adverse events e.g. use of seclusion and restraint. Debriefing tools evaluate the physical and emotional impact on all involved individuals. They also identify the need for (and provide) counselling or support for the individuals (including staff) involved for any trauma that may have resulted (or emerged) from the incident.
	Issues/comments Nil
Therapeutic programs, physical health, physical activity and fitness initiatives	**Description** There are many examples of therapeutic programs conducted in acute mental health settings. For example, Calvary Hospital's Hyson Green in Canberra offers a diverse range of inpatient, day patient and specific day/evening programs. The program components include assertiveness training, stress management, relaxation therapy, cognitive therapy, dialectical therapy, anger management, grief and loss counselling, conflict resolution, building self-esteem, communications skills and creative therapy and physical activities. Programs are also offered for family members and carers.
	Source Marion Centre, 2013[76] Happell et al., 2011[77]
	Relevance Inpatient programs and activities support patients to self-manage the pain and emotional turmoil associated with acute psychological distress as well as boredom and frustration often associated with acute psychiatric hospitalisation.

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Therapeutic programs, physical health, physical activity and fitness initiatives *(continued)*	**Issues/comments** Nil
Inpatient education e.g. Recovery Colleges	**Description** Recovery Colleges have been established in acute mental health inpatient settings and community settings in recent years in America, England and Scotland. They offer comprehensive, peer-led education and training programs to support personal recovery. Recovery Colleges seek to help enable people to become experts in their own self-care and to develop the skills they need for living and working. They provide opportunities for peer support, for choice and control, and for supporting people to achieve their hopes and ambitions. Courses are co-devised and co-delivered by people with lived experience of mental illness and by mental health professionals. St Vincent's Mental Health Service in Sydney has introduced the Pathways to Recovery program into its acute inpatient programs. This training program was developed at Kansas University by a partnership of recovery educators, consumer co-authors and an advisory group of Kansas consumers (personal communication: Peter McGeorge and Douglas Holmes, 2013). **Source** Perkins et al., 2012[130] Perkins and Slade, 2012[131] **Relevance** Perkins and Slade suggest that in moving beyond the narrow focus of symptom reduction to helping people to rebuild and manage their own lives, the provision of co-devised and co-delivered training in inpatient settings can assist to improve the safety and quality of inpatient-based mental health services.[131] **Issues/comments** In the United Kingdom, Recovery College subjects and courses are often offered to both patients and families alike. There is no Australian evidence on this strategy.

Appendix C:
Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Tools and strategies to manage adverse outcomes associated with deterioration in mental state

Item	
Communities of practice	**Description** The report of the Mental Health-Emergency Care (MH-EC) Interface Project conducted by the National Institute of Clinical Studies (NICS) detailed the role of communities of practice in providing improved and safer care. Forty-one hospitals throughout Australia participated in the project during 2004–06. This project connected emergency and mental health staff from different organisations, allowing them to work closely together. The aim was to improve processes of care based on best available evidence for people presenting to emergency departments with a mental health problem. The project focused on care from the point of referral or admission through to a plan of management for discharge from the emergency department. The report of the project explains that at each site the project commenced with multi-disciplinary forums of emergency department and mental health professionals to gain skills in improvement methods, project planning, network with peers and clinical leaders, and learn the principles of implementing evidence to improve clinical practice.
	Source National Institute of Clinical Studies, 2006[78]
	Relevance Skill and practice development in mental health emergency care was supported centrally throughout out the project with: • web-based communication system with features that allowed teams to: report data against project targets on a monthly basis; generate individual progress reports to monitor performance; access shared resources such as clinical guidelines and mental health triage tools; and discuss issues via an online discussion forum • regular group teleconferences • phone and email contact. Outcomes noted included improvement in communication and understanding of issues between mental health services and emergency departments within the hospital and better referral practices and an improved capacity of the hospital to address mental health needs.
	Issues/comments The approach of the Mental Health Emergency Communities of Practice initiative shows promise with its emphasis on working relationships at both a practice level and an organisational level within a local, regional or service network. The focus on those with a common interest in improving emergency mental health care seems transferrable to improving recognition and response to deterioration in mental state in acute healthcare settings. Barriers in developing and sustaining emergency care communities of practice and project interventions included competing priorities over time, a lack of time for the project as it progressed, and the limited spread of influence of the programs' champions.

Appendix D:
Organisational responses

D

The organisations listed below provided a written submission to the Scoping Review.

- ACT Mental Health, Justice Health and Alcohol and Drug Services

- Northern Territory Branch, Australian College of Mental Health Nurses

- Office of the Chief Psychiatrist, WA

- Queensland Alliance for Mental Health

- Ramsay Health Care SA Mental Health Services

- Richmond Fellowship, WA

- Safety and Quality Partnerships Standing Committee

- Tasmanian Department of Health and Human Services, Statewide and Mental Health Services

- Victorian Mental Illness Awareness Council (VMIAC)

Appendix E:
Individual responses

Individual responses to the Scoping Review were provided by the people listed below. In addition, three anonymous submissions were received.

- Usha Adams, Credentialed Mental Health Nurse (ACMHN), Registered Nurse, Private Practice

- Dale Batzloff, Nurse Educator Mental Health

- Phillip Galley, Senior Manager, Safety, Quality and Professional Leadership, Southern Adelaide-Fleurieu-Kangaroo Island Medicare Local

- Kate Harel, Nurse Unit Manager, St Vincent's Private Hospital, Uspace, Young Adult Mental Health Unit, O'Brien Centre, Darlinghurst NSW

- Janice Jankovic, Clinical Nurse Consultant, NSW Department of Family and Community Services, Aging Disability and Home Care, Parramatta, NSW

- Linda Lorriman, Agency Nurse

- Pauline Miles, Consumer Adviser and Art Educator, Perth

- Christine Neville, Associate Professor, School of Nursing and Midwifery, The University of Queensland, QLD

- Ingrid Ozols, Managing Director, MentalHealth@Work

- Desley Quinton, Nurse

- Judy Tyson, Mental Health Nurse

Appendix F:
Interviews and consultations conducted and other advice

Advice was received from a range of organisations and individuals through interviews and other consultation activities.

Consumer and carer organisations and representatives

Australian Private Mental Health Consumer and Carer Network, including members of the National Committee:

- Janne McMahon OAM
- Norm Wotherspoon
- Kim Werner
- Evan Bichara
- Lucy Henry

Margaret Cook, COMIC WA

Douglas Holmes, Scoping Review Team and Consumer Participation Officer, consultant, St Vincent's Hospital Inner City Health, St Vincent's Health Service, Sydney

Justine Liebmann, Phone Connections, CAN (Mental Health), NSW – Phone Connections

National Mental Health Consumer and Carer Forum and the National Register

Peri O'Shea, CEO, NSW Consumer Advisory Group

Shane Plunkett, Hospital to Home, CAN (Mental Health), NSW

Christine Stammers, CAN (Mental Health) Qld, CAN Board Member

Donna Johnston, Phone Connections, CAN (Mental Health) NSW

Michael White, Team Leader/Project Officer, Hospital to Home, CAN (Mental Health) NSW

Representatives of carer organisations

Jackie Crowe, Commissioner, National Mental Health Commission

Jane Henty, Executive Officer, Mental Health Carers Arafmi Australia

Eileen McDonald, Scoping Review Team and Carers NSW Carer Representative, a member of Mental Health Council of Australia's National Register of Consumer and Carer Representatives and the NSW Carer Representative (former Co-Chair) of the National Mental Health Consumer and Carer Forum

Elida Meadows, Vice President, Mental health Carers Tasmania, Carer Representative Mental Health in Multicultural Australia

Jean Platts, Treasurer, ARAFMI QLD and Board member, Mental Health Carers ARAFMI Australia

Professional associations

Australian College of Mental Health Nurses:

- Anne Buck, Manager, Policy and Stakeholder Engagement, ACMHN
- Susan Liersch, Lecturer in Mental Health, University of Wollongong
- Elaine Ford, Nurse Practitioner Consultation-Liaison Psychiatry, South West Area Health Service
- Brett McKinnon, Mental Health Nurse Practitioner, Manager, Mental Health Services, Tristar Medical Group
- Jamie Wann, Acute Mental Health Unit, Toowoomba Hospital
- Robin L Scott, BMU Consultancy Service
- Louise Roufeil, Executive Manager Professional Practice (Policy), APS
- Melissa Casey, Director Psychology, Monash Health
- Rachel Phillips, Director of Psychology, West Moreton Hospital and Health Service

State and territory mental health directorates

Queensland Office of the Chief Psychiatrist, Mental Health Alcohol and Other Drugs Branch, Health Service and Clinical Innovation Division

Tasmanian Statewide and Mental Health Services, Department of Health and Human Services Tasmania, Manager Clinical Governance and Area Directors of Psychiatry

Community sector

Health Consumers Alliance of South Australia

Mental Health Council Tasmania

Mental Health in Multicultural Australia

Queensland Alliance

Appendix F:
Interviews and consultations conducted and other advice

Public sector clinical/service managers and academics and other expert advisers

Gavin Andrews, Professor of Psychiatry, University of NSW at St Vincent's Hospital

Vaughan Carr, Professor Psychiatry, University of NSW

Matthew Cullen, Staff Specialist, St Vincent's Hospital Alcohol, Drug and Mental Health Program, Darlinghurst, NSW

Brett Emmerson, Director, Metropolitan North Mental Health – Royal Brisbane and Women's Hospital

Grant Sara, Clinical Senior Lecturer, Psychiatry, Northern Clinical School Director, Information Mental Health, NSW Mental Health Drug and Alcohol Office

Roger Gurr, Associate Professor, University of Western Sydney, Senior Psychiatrist, Blacktown City Mental Health Service

Grant Hanson, Australian Institute of Health and Welfare

Beaver Hudson, Staff Specialist, St Vincent's Hospital Alcohol, Drug and Mental Health Program, Darlinghurst

Rod McKay, Senior Staff Specialist South Western Sydney LHD, Acting Director, Specialist Mental Health Services for Older People Sydney and South Western Sydney LHDs, Conjoint Senior Lecturer University of NSW

Richard Newton, Austin Health, Melbourne

Nick O'Connor, Clinical Director, North Shore Ryde Mental Health Service, NSW

Michael Paton, Clinical Director, Mental Health Drug and Alcohol Northern Sydney Local Health District, NSW

Alan Rosen, Deputy Commissioner, NSW Mental Health Commission

Mike Slade, Kings College London

Staff of Birunji, Youth Mental Health Service (acute inpatient), Campbelltown Hospital, Sydney

Ruth Vine, Director of Psychiatry, Melbourne Clinic, Victoria

Harvey Whiteford, Professor of Psychiatry and Population Health at The University of Queensland and Director of the Policy and Economics Group, Queensland

Private hospital chief executives and managers

Australian Capital Territory

Strephon Billinghurst, Chief Executive Officer, Calvary Private Hospital

Michele Garner, Nurse Unit Manager, Calvary Private Hospital

New South Wales

Stephen Brooker, Chief Executive Officer, The Sydney Clinic Bronte

Allison Campbell, Director Clinical Services, St John of God Hospital, Richmond

Karen Gallagher, General Manager, Lingard Private Hospital Merewhether

Rebekah Gutherie, Psychiatric Unit Manager, The Hills Private Hospital

Jill Farrell, Chief Executive Officer, South Pacific Private Hospital, Curl Curl

Bronwyn Jenner, General Manager, Sydney South West Private Hospital

Doug McRae, Chief Executive Officer, Albury Wodonga Private Hospital

Margaret Michell, Chief Executive Officer, The Hills Clinic, Kellyville

Andrew Mitchell, General Manager, Wesley Health and Counselling Services, Ashfield

Anne Mortimer, Chief Executive Officer, The Northside Group

Steven Rajcany, Chief Executive Officer, Dudley Private Hospital Orange

Clair Walker, General Manager, Mosman Private Hospital

Robyn White, Chief Executive Officer, Warners Bay Private Hospital

Queensland

Andrew Cashion, General Manager, Pine Rivers Private Hospital Strathpine

Ken Craig, Chief Executive Officer, New Farm Clinic

Cliff Evans, General Manager, Brisbane Private Hospital, Brisbane

Ray Fairweather, Chief Executive Officer, St Andrews Private Hospital Toowoomba

Christine Gee, Chief Executive Officer, Toowong Private Hospital

Varri Mackinnon, General Manager, The Palm Beach Currumbin Clinic

Trish Mossop, Mental Health Services Manager, Greenslopes Private Hospital

Mark Page, Chief Executive Officer, Cairns Private Hospital

John Smith, Chief Executive Officer, Belmont Private Hospital Carina

Terence Symour, General Manager, The Sunshine Coast Private Hospital

South Australia

Stacy Bell, Site Manager, Kahlyn Private Hospital, Magill

Carol Turnbull, Chief Executive Officer, The Adelaide Clinic, Adelaide

Tasmania

Andrew Cashion, General Manager, St Helens Private Hospital, Hobart

Amanda Quealy, Chief Executive Officer, The Hobart Clinic, Hobart

Victoria

Debbie Beeton, General Manager, The Victoria Clinic, Prahran

Graham Cadd, Chief Executive Officer, St John of God Pinelodge Clinic, Dandenong

Gaylyn Cairns, General Manager, Northpark Private Hospital, Bundoora

Val Davie, Chief Executive Officer, Essendon Private Hospital

Linda Edgerton, Chief Executive Officer, Mitcham Private Hospital

Janine Haigh, General Manager, The Geelong Clinic, St Albans Park

Greg Hall, Chief Executive Officer, Beleura Private Hospital, Mornington

Loretta Parkes, Administrative Support, St John of God, Warrnambool

John Parkinson, Manager, St John of God, Warrnambool

Sue McClean, Chief Executive Officer, The Albert Road Clinic, South Melbourne

Andrew McKenzie, General Manager, The Melbourne Clinic, Richmond

Fiona Sanders, Director of Hospitals, Victoria Malvern Private Hospital

Peter Selar, Chief Executive Officer, Delmont Private Hospital, Glen Iris

Tim Yeoh, Chief Executive Officer, Brunswick Private Hospital

Western Australia

Lynda Campbell, Chief Executive Officer, Abbotsford Private Hospital, West Leederville

Martin Chapman, Chief Executive Officer, The Marian Centre, Wembley

Peter Mott, Chief Executive, Hollywood Private Hospital, Nedlands

Ms Moira Munro, Chief Executive Officer, Perth Clinic, Perth

Dennis Tannenbaum, Chief Executive Officer, Sentiens Clinic, West Perth

Other advice

Sue Phillips, Australian Bureau of Statistics

Ken Thompson, Recovery Innovations, Phoenix Arizona

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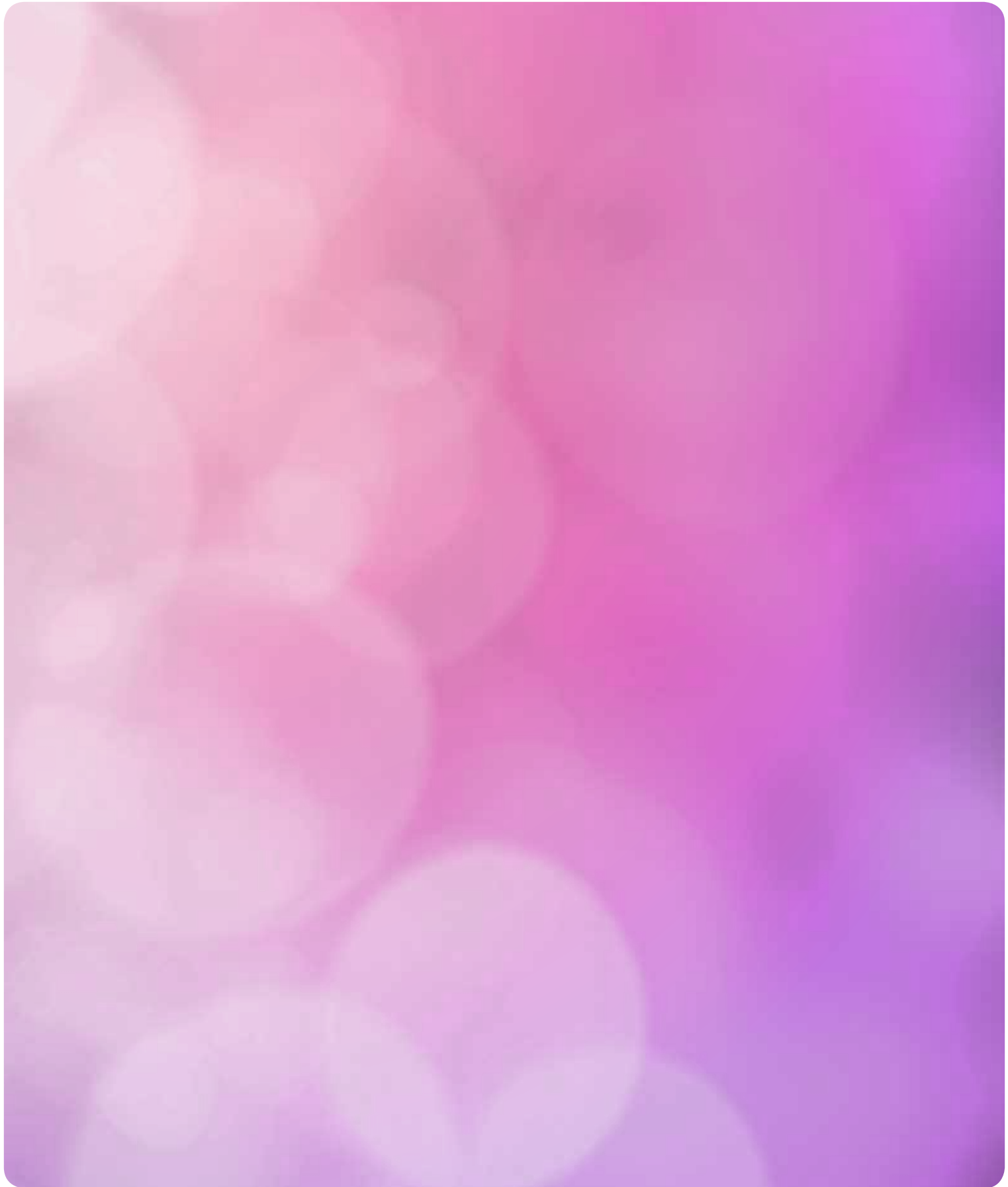
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