Policy Directive

NSW GOVERNMENT

Recognition and management of patients who are deteriorating

Summary	This document describes the standards and principles of the Deteriorating Patient Safety Net System for the recognition, response to and the appropriate management of the physiological and mental state deterioration of patients.
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Audience	All Staff and Executives of Public Health Organisations

Secretary, NSW Health

RECOGNITION AND MANAGEMENT OF PATIENTS WHO ARE DETERIORATING

POLICY STATEMENT

All NSW public health organisations are to have local systems, structures and process in place to support the recognition, response to and appropriate management of the physiological and mental state deterioration of patients.

In this policy, public health organisations include local health districts, statutory health corporations and affiliated health organisations (with respect to their recognised services) that provide direct patient care.

SUMMARY OF POLICY REQUIREMENTS

All NSW public health organisations are to:

- Have a clearly defined governance system to oversee the management and continuous improvement of the local Deteriorating Patient Safety Net System.

- Use standard clinical tools and approved local clinical management guidelines/pathways as part of the local Deteriorating Patient Safety Net System to assess and monitor patient deterioration, including the NSW Health standard observation charts (paper or electronic) (unless an exemption from use of the charts has been granted).

- Formalise and implement a local Clinical Emergency Response System (CERS) that meets the requirements outlined in section 5 of this Policy Directive.

- Engage all patients, carers and families in a culturally appropriate manner to inform them about processes to escalate their concerns about patient deterioration, including who to contact and how to contact them.

- Have a local education program to support the local Deteriorating Patient Safety Net System that aligns with the Deteriorating Patient Education Strategy.

- Ensure that all staff are made aware of the local Deteriorating Patient Safety Net System (including how to activate their local CERS), and their roles and responsibilities under the system during orientation and/or ward induction.

- Ensure that all clinicians who provide direct patient care have completed the mandatory BTF Tier one and Tier two education and training prior to or during their induction to the health service, as outlined in the Deteriorating Patient Education Strategy.

- Implement a local measurement strategy that monitors the performance and effectiveness of the Deteriorating Patient Safety Net System, including the collection and reporting of mandatory quality improvement measures.

- Communicate data and information about the performance of the local Deteriorating Patient Safety Net System to key stakeholders, including patients, carers, families and clinicians/staff.

REVISION HISTORY

Version	Approved by	Amendment notes
June-2020 (PD2020_018)	Chief Executive, Clinical Excellence Commission	Amendment of period of time for acute alterations to calling criteria from not longer than 12 hours to not longer than 8 hours (page 16).
May-2020 (PD2020_010)	Deputy Secretary, Patient Experience and System Performance	Replaces PD2013_049. Amended to streamline the document, support flexible implementation by a broader range of NSW health facilities/clinical services/clinical units and align with the NSQHS Recognising and Responding to Acute Deterioration Standard (second edition).
December 2013 (PD2013_049)	Deputy Director General, Governance, Workforce and Corporate	Replaces PD2011_077. Additional guidance for paediatric, maternity and emergency department implementation.
December 2011 (PD2011_077)	Director-General	Replaces PD2010_026. Altered calling criteria section 5.2
May 2010 (PD2010_026)	Director-General	New Policy

ATTACHMENTS

1. Recognition and Management of Patients who are Deteriorating: Procedures

CONTENTS

1   BACKGROUND

Failure to recognise and appropriately manage patient physiological and mental state deterioration is a contributing factor in many adverse events in hospitals and health care organisations around the world.[1-6] Evidence derived from clinical incident reporting in NSW has demonstrated the same problem exists in NSW health services.[3]

Between the Flags was developed by the Clinical Excellence Commission in collaboration with clinical experts. It is based on research into patient clinical deterioration initiated in NSW and published in the international literature.[3, 6] Between the Flags provides the foundation for the NSW Deteriorating Patient Safety Net System, which is strengthened by the integration of other programs and frameworks, such as:

- Sepsis Kills
- End of Life
- Patient, carer and family escalation, known as R.E.A.C.H, and
- Take 2, Think, Do framework for diagnostic error.

The Deteriorating Patient Safety Net System has five components:

1. **Governance**: structures and processes to support implementation, management and quality improvement at Local Health District (LHD)/Specialty Health Network (SHN), facility, clinical service and clinical unit level

2. **Standard Clinical Tools:** including observation charts with standard calling criteria for clinical review and rapid response, and approved local clinical management guidelines/pathways that outline the Clinical Emergency Response System (CERS) response and support documentation

3. **Clinical Emergency Response System (CERS)**: a local system for the escalation of care that is used by staff, patients, carers and families

4. **Education:** tiered education for clinicians to develop and reinforce clinical and non-technical skills in recognising and responding to patients who are deteriorating

5. **Evaluation:** evaluation strategy that includes a family of measures (outcome, process and balancing measures) for monitoring the performance and improving the effectiveness of the Deteriorating Patient Safety Net System.

The Deteriorating Patient Safety Net System addresses criteria within the Australian Commission on Safety and Quality in Health Care's [Recognising and Responding to Acute Deterioration Standard](#).

1.1   Roles and responsibilities

Clinical Excellence Commission

- Identify and advise the NSW Ministry of Health and public health organisations (PHOs) on available strategies, standards and tools to support continued improvement of the NSW Health Deteriorating Patient Safety Net System.

- Support clinicians and relevant Executives/Directors of Clinical Governance (DCGs) to implement, monitor and improve the Deteriorating Patient Safety Net System across NSW.

- Monitor and evaluate the implementation of local Deteriorating Patient Safety Net Systems and provide advice to PHOs to make changes, as required.

Health Education and Training Institute

- Work in collaboration with the CEC on the development of education program content.

- State wide education and training and management of the learning pathways for the Deteriorating Patient Program.

- Provide advice on educational standards and governance of content in the state wide learning management system.

Local Health Districts & Specialty Health Networks

- Assign responsibility, personnel and appropriate resources to implement all the requirements of this Policy.

- Ensure the requirements of this Policy are effectively implemented, including system governance, standard clinical tools, CERS, education and evaluation.

- Work with NSW Ambulance in the development, implementation and monitoring of local CERS where the provision of CERS Assist is required.

HealthShare NSW

- Incorporate the core principles of Deteriorating Patient Safety Net System and clinical handover into non-emergency transport clinical practice, where appropriate.

- Support PHOs with the implementation of the Deteriorating Patient Safety Net System/s, where required.

NSW Ambulance

- Incorporate the core principles of the Deteriorating Patient Safety Net System and clinical handover into Ambulance clinical practice, where appropriate.

- Support PHOs with the implementation of the Deteriorating Patient Safety Net System, including the provision of CERS Assist, where required.

eHealth NSW

- Ensure that the design and build of electronic medical record functionality and clinical decision support tools align with the standards and principles outlined in this document.

- Ensure that relevant electronic medical record functionality and clinical decision support tools are maintained and continuously improved where required.

- Support PHOs, as required, to implement applicable electronic medical record functionality and clinical decision support tools that align with the standards and principles outlined in this document.

2 KEY TERMS

Acute alterations to calling criteria	Alterations made to calling criteria for a condition where the patient's observations will fall outside the standard parameters for a defined period of time, while treatment is taking effect. Acute alterations to calling criteria are set for a defined period of time (not longer than 8 hours), after which they revert back to standard calling criteria. Patients with acute alterations to calling criteria must have daily medical reviews to ensure their clinical progress aligns with the patient's treatment plan.
Additional criteria	Signs or symptoms of deterioration depicted on the standard observation chart that a patient may exhibit outside of, or in addition to, the standard calling criteria for vital sign observations.
Agreed signs of deterioration	Signs or symptoms of deterioration that a patient may exhibit outside of, or in addition to, the standard calling criteria and additional criteria that are agreed following engagement of the patient, carer and family, and tailored to the patient's specific circumstances.
Altered calling criteria	Changes made to the standard calling criteria by the AMO/delegated clinician responsible, to take account of a patient's unique physiological circumstances and/or medical condition. Alterations may be 'acute' or 'chronic'.
A-G systematic Assessment	A structured approach to physical assessment that considers a patient's **A**irway, **B**reathing, **C**irculation, **D**isability, **E**xposure, **F**luids, **G**lucose.
Attending Medical Officer (AMO) / Delegated clinician responsible	Senior medical practitioner who has primary or delegated responsibility and accountability for a patient on a temporary or permanent basis. For an inpatient, this is the named Attending Medical Officer (AMO) or another consultant, staff specialist or visiting medical officer with delegated responsibility. As defined in local guidelines and following a risk assessment, the delegated clinician responsible may also be a senior clinician such as a nurse practitioner. In the non-hospital/residential setting this may be the patient's general practitioner.
Balancing measure/s	A unit of data that measures whether changes to one part of a system have an impact on another part of the system and the size of the effect.
Behaviour change	Changes to the way a patient interacts with other people or their environment that deviate from their baseline or their expected response, based on developmental age. Changes may present as shifts in cognitive function, activity/tone, perception, or emotional

	state, such as abnormal thinking, irritability, agitation, inconsolability and/or delirium.
Blue zone	A coloured zone on the standard clinical tools that requires an increase in the frequency of observation. Staff are to consider calling for an early clinical review.
Clinical Emergency Response System (CERS)	A formalised system for staff, patients, carers and families to obtain timely clinical assistance when a patient deteriorates (physiological and/or mental state). The CERS includes the facility-based and specialty unit based responses (clinical review and rapid response), as well as the formalised referral and escalation steps to seek expert clinical assistance and/or request for transfer to other levels of care within the facility (intra-facility) or to another facility (inter-facility).
CERS Assist	A NSW Ambulance program whereby urgent additional clinical assistance is provided in response to a rapidly deteriorating patient (red zone observations or additional criteria) in a public health care facility.
Chronic alteration to calling criteria	Alterations to calling criteria where a patient has a chronic (lasting >3 months) health condition which causes their normal observations to fall outside standard parameters. Chronic alterations are set for the duration of the patient's episode of care and are reviewed during routine medical review and assessment of the patient.
Clinical Review	A review of a deteriorating patient undertaken within 30 minutes by the clinical team responsible for the patient's care, or designated responder/s, as per the local CERS protocol.
Clinical team responsible for the patient's care	The clinicians, led by the AMO/delegated clinician responsible, who are involved in, and responsible for, the care of the patient on a temporary or permanent basis. In most cases this is the medical team unless otherwise specified.
Clinical service	A health professional or group of professionals who work in co-operation and share common facilities or resources to provide services to patients for the assessment, diagnosis and treatment of a specific set of health-related problems/conditions in a facility or in the community.
Clinical unit	A subset of a facility or service with a special clinical function.
Clinician/s	Medical, nursing, midwifery and allied health professionals who provide direct patient care.
Deterioration in mental state	A negative change in a person's mood or thinking, marked by a change in behaviour, cognitive function, perception or emotional state. Changes can be gradual or acute; they can be observed by members of the workforce, or reported by the person themselves, or their family or carers. Deterioration in a person's mental state can be related to

	several predisposing or precipitating factors, including mental illness, psychological or existential stress, physiological changes, cognitive impairment (including delirium), intoxication, withdrawal from substances, and responses to social context and environment.[7]
Deteriorating Patient Safety Net System	The NSW Health Deteriorating Patient Safety Net System refers collectively to the various individual programs and frameworks implemented by NSW Health facilities/clinical services or clinical units to support the recognition and appropriate management of patients who deteriorate.
End of life	Refers to the timeframe an individual is clearly approaching the end of their life and is living with and/or impaired by a life-limiting illness. This includes the patient's last weeks or days of life, when deterioration is irreversible and when a patient is likely to die in the next 12 months[10].
Facility	A building or structure where healthcare is provided by a public health organisation, such as a hospital, multi-purpose centre or office-based clinic.
Family of measures	A collection of outcome, process and balancing measures that monitor many facets of the system and provides a framework to understand the impact of changes.
Individualised monitoring and assessment plan	A plan for assessing and monitoring the patient's clinical situation that considers their diagnosis, clinical risks, goals of care and proposed treatment, and specifies the vital signs and other relevant physiological and behavioural observations to be monitored and the frequency of monitoring[7, 8].
ISBAR	An acronym for **I**ntroduction, **S**ituation, **B**ackground, **A**ssessment, **R**ecommendation, a structured communication tool.
Last days of life	Refers to the last 24-72 hours of life when treatment to cure or control the person's disease has stopped and the focus is on physical and emotional comfort and social and spiritual support.
New onset confusion	A disturbance of consciousness, attention, cognition and perception that develops over a short period of time (usually hours to a few days)[11].
Outcome measure/s	A unit of data that measures whether changes to the system have an impact on the intended recipient and the size of the effect.
Palliative care	An approach that aims to prevent and relieve suffering and improve the quality of life of patients and their families who are facing the problems associated with life-threatening illness through early identification and assessment and treatment of pain and other physical, psychosocial and spiritual issues[10].
Process	A unit of data that measures whether the system is performing as it is

measure/s	intended to and that activities are occurring as planned, and the extent to which that is happening.
Public health organisation (PHO)	Local health districts, statutory health corporations and affiliated health organisations (with respect to their recognised services) that provide direct patient care.
Rapid response	An urgent review of a deteriorating patient by a rapid response team (RRT), or designated responder/s, as defined in the local CERS protocol.
R.E.A.C.H	An acronym for **R**ecognise, **E**ngage, **A**ct, **C**all, **H**elp is on its way. R.E.A.C.H is a CEC program for patients, carers and families to directly escalate concerns about deterioration through the local CERS.
Red zone	Coloured zone on the standard clinical tools that represent warning signs of deterioration for which a rapid response call (as defined by the local CERS protocol) is required.
Resuscitation Plans	A medically authorised order to use or withhold resuscitation measures (formerly called 'No CPR Orders'). Resuscitation Plans can also be used to document other time-critical clinical decisions related to end of life. A Resuscitation Plan is made: • With reference to pre-planning by patients (such as Advance Care Directives or plans) • In consultation with patients, carers and families • Taking account of the patient's current clinical status, as well as their wishes and goals of care. Resuscitation Plans are intended for use for patients 29 days and older in all NSW PHOs, including acute facilities; sub-acute facilities; ambulatory and community settings; and by NSW Ambulance [12].
Special Care Nursery	A clinical unit with space designated for the care of neonates who require additional support, or who need additional monitoring and/or observation[13,18].
Standard calling criteria	Signs and symptoms that a patient is deteriorating and may require review of their monitoring plan or escalation of care through the Clinical Emergency Response System to appropriately manage the deterioration. Standard calling criteria are depicted on standard observation charts as blue, yellow and red zones.
Standard clinical tools	A tool or resource that supports clinicians to recognise when a patient is deteriorating and outlines the appropriate response, such as the sepsis pathways; electronic fetal heart rate monitoring algorithm and labels; Comfort Observation and Symptom Assessment chart; and Resuscitation Plan, as well as the NSW Health standard observation

	charts.
Standard observation chart	Standardised observation chart approved for use by the NSW Ministry of Health. These have been developed for a variety of clinical settings.
Track and trigger tool	A tool, such as the standard observation chart, that records vital sign observations and allows them to be tracked over time to support identification of a change in the patient's condition that requires a review and/or change in management or frequency of observation.
Transfer of care	The transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis. Also known as clinical handover.
Yellow zone	Coloured zone on the standard observation charts and standard clinical tools that represent warning signs of deterioration for which a clinical review or other CERS call may be required.

3   GOVERNANCE

Public health organisations (PHOs) need to have a clearly defined governance system in place at LHD/SHN level and facility/clinical service/clinical unit level to oversee the management and continuous improvement of the local Deteriorating Patient Safety Net System.

At the LHD/SHN level, the governance system needs to:

- Provide leadership to support the management and continuous improvement of the Deteriorating Patient Safety Net System locally

- Establish and articulate clear objectives and expectations for the Deteriorating Patient Safety Net System that align with the standards and principles outlined in this policy

- Provide a framework, endorsed by the Director of Clinical Governance or other responsible senior executive, for determining exemptions for specialty clinical units where patients are appropriately monitored and care is escalated as required, such as intensive care units, coronary care units and operating theatres, from using the NSW Health Standard Observation Charts

- Delegate clear roles, responsibilities and accountabilities to personnel at facility/clinical service/clinical unit level to lead, manage and continuously improve the Deteriorating Patient Safety Net System

- Determine the education and training requirements for all staff involved in the management and continuous improvement of the Deteriorating Patient Safety Net System at a facility/clinical service/clinical unit level, including those with delegated roles, responsibilities and accountabilities for managing the system

- Review regular reports and monitor performance of the Deteriorating Patient Safety Net System across facilities, clinical services and clinical units

- Communicate with stakeholders, including patients, carers, families, clinicians and the Clinical Excellence Commission, to provide feedback on the performance and effectiveness of the Deteriorating Patient Safety Net System.

At the facility/clinical service or clinical unit level, the governance system needs to support the following functions:

- Facilitate collaboration between patients, carers and families, clinicians and managers to design, implement, monitor and continuously improve the Deteriorating Patient Safety Net System consistent with the objectives and expectations of the LHD/SHN, including a local CERS protocol that meets the requirements outlined in this Policy

- Support the development of organisational policies and procedures relevant to the Deteriorating Patient Safety Net System that reflect the role, capacity and capability of the facility/clinical service or clinical unit in hospital and non-hospital settings

- Delegate clear roles, responsibilities and accountabilities to appropriately skilled and trained personnel for managing and improving the local Deteriorating Patient Safety Net System

- Ensure clinicians with delegated roles, responsibilities and accountabilities under the local Deteriorating Patient Safety Net System are oriented to the system and demonstrate a clear understanding of their roles, responsibilities and accountabilities, including contracted staff, locums and clinicians on rotating rosters

- Provide opportunities for clinicians to complete the required education and training relevant to their delegated role in the local Deteriorating Patient Safety Net System and maintain records of completion

- Ensure that clinicians with delegated responsibilities under the local Deteriorating Patient Safety Net System are appropriately credentialed

- Support use of appropriate standard clinical tools/approved local clinical management guidelines or pathways as part of the local Deteriorating Patient Safety Net System, including approved NSW Health standard observation charts unless exempt

- Ensure that adequate resources (personnel and equipment), are allocated, available and fit-for-purpose to support the delivery of high-quality care as part of the Deteriorating Patient Safety Net System

- Collect and report data and information on the performance and effectiveness of the Deteriorating Patient Safety Net system to the LHD/SHN, relevant local committees, clinicians, patients, carers and families to facilitate quality improvement

- Monitor variation in practice against expected outcomes and provide feedback to clinicians on variation in practice and health outcomes to inform improvements in the Deteriorating Patient Safety Net System

- Regularly test the local Deteriorating Patient Safety Net System and/or processes through mock drills or simulated exercises where these events are infrequent or when there are significant changes to the context of service delivery.

Clinicians using, and/or with delegated roles, responsibilities and accountabilities under the Deteriorating Patient Safety Net System are to:

- Actively take part in the design, implementation, monitoring and improvement of the local Deteriorating Patient Safety Net System

- Understand and perform their delegated roles and responsibilities, as per their local Deteriorating Patient Safety Net System

- Participate in education and training related to the Deteriorating Patient Safety Net System, including education and training that focuses on culturally appropriate engagement of patients, carers and families and shared decision making

- Review their clinical practice and performance of their roles, responsibilities and accountabilities under the Deteriorating Patient Safety Net System and use the information to implement improvements to the system and changes to practice.

The allocation of roles, responsibilities and accountabilities under the Deteriorating Patient Safety Net System will vary depending on the health services' local context, availability of resources and models of care. Some examples of the key roles, responsibilities and accountabilities that might be allocated to personnel as part of a local Deteriorating Patient Safety Net System are outlined in Appendix 10.1.

4   ASSESSMENT OF DETERIORATION

4.1   Assessment

Assessment of a patient needs to, at a minimum, include a systematic A-G assessment and be documented in the patient's health care record, as per the requirements outlined in NSW Health Policy Health Care Records – Documentation and Management (PD2012_069). To establish the patient's baseline and agree on other patient-specific signs of deterioration initially, assessment needs to:

- Include a comprehensive systematic physical and mental state assessment

- Consider any pre-morbid conditions and where accessible, medical or clinical history documented in health care records

- Engage patients, carers, families and where appropriate, the patient's general practitioner, case manager or other clinicians familiar with their care.

Ongoing assessment is to involve the patient, their carer/s and family in monitoring changes in their physical and mental state and vital sign observations, as well as interpretation of clinical information and trends.

The frequency of assessment is to be increased above the minimum requirements outlined in Table 2 when:

- The patient's vital sign observations fall within a coloured zone on a standard observation chart

- Assessment identifies other signs and symptoms of deterioration

- A CERS call has been made.

Assessment is to be respectful of, and sensitive to, the cultural and religious needs of the patient, including their personal preferences, cultural values, language and kinship systems. Patients and carers are also to be given information and education of the importance of communicating concerns around signs of deterioration.

4.2 Standard clinical tools

Standard clinical tools support clinicians to assess patients, recognise when they may be deteriorating and outline the appropriate escalation of care.

The standard observation charts approved by the NSW Ministry of Health are standardised clinical tools designed using human factors principles. The charts incorporate colour-coded calling criteria and a 'track and trigger' format to alert clinicians to patients who are deteriorating, by graphically 'tracking' their vital sign observations over time and 'triggering' an appropriate escalation of care based on the coloured calling criteria. The charts also include a list of additional colour-coded escalation criteria that include other standard signs and symptoms of deterioration.

All NSW Health services are to use the approved standard observation charts as part of their Deteriorating Patient Safety Net System, unless they have an exemption issued by their LHD/SHN to use alternative charts. Specialty clinical units where patients are appropriately monitored and care is escalated as required, such as intensive care units, coronary care units and operating theatres, may be exempt from using the standard observation charts, as per section 3.

Where facilities or clinical services use electronic versions of the standard observation charts, processes must be in place to ensure documentation of vital sign observations can continue to be completed during system outages.

The standard observation charts have three colour-coded zones:

Blue zone: (where applicable) represents criteria for which increasing the frequency of observations and/or increased vigilance is required

Yellow zone: represents early warning signs of deterioration and the criteria for which a clinical review (or other CERS) call may be required

Red zone: represents late warning signs of deterioration and criteria for which a rapid response call is required.

Appendix 10.2 provides further details of required actions when each zone is triggered.

Other standard clinical tools, such as the sepsis pathways, electronic fetal heart rate monitoring algorithm and labels, Comfort Observation and Symptom Assessment Chart,

and Resuscitation Plan, have been designed to align with the colour-coded calling criteria used on the standard observation charts. The coloured zones on the standard clinical tools outline the appropriate response and these are to be incorporated as part of the local CERS.

Local clinical management guidelines or clinical pathways may be developed for specialty areas or groups of patients with clinical indications for more or less frequent monitoring. Local clinical management guidelines and clinical pathways need to outline the criteria for escalation of care (coloured zones); be approved using the local governance system; and incorporated into the local CERS.

4.3 Minimum requirements for vital sign monitoring

The minimum set of vital signs and frequency of observations for different patient groups are outlined in Table 2 below.

In addition to the minimum requirements, a full set of vital sign observations must be taken and documented in the patient's health care record:

- At the time of admission or initial assessment (this excludes the brief clinical assessment conducted as part of the triage process on arrival to the Emergency Department)

- Within one (1) hour prior to discharge from a facility, clinical service or clinical unit.

- Prior to and following transfer of care between a facility, clinical service or clinical unit.

A medical officer may only prescribe the frequency of vital sign observations below the minimum requirements following an assessment of the patient and with authorisation from the AMO/delegated clinician responsible for the patient's care.

Where a medical officer is not available onsite, a registered nurse/midwife or allied health professional may vary the frequency of observations below the minimum frequency outlined in Table 2, with authorisation from the AMO/ delegated clinician responsible for the patient. This must be arranged via phone order and follow agreed local procedures.

Table 2: Minimum number and frequency for vital sign observations

Patient group	Minimum required frequency of assessment	Minimum set of vital sign observations	Comments
Adult inpatients	Four (4) times per day at six (6) hourly intervals.	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*, pain score	Including pregnant women greater than twenty (20) weeks gestation and less than six (6) week post-partum admitted for a condition unrelated to pregnancy who are monitored on the Standard Maternity Observation Chart (SMOC).
Mental health acute and	Three (3) times per day at eight (8) hourly	Respiratory rate, oxygen saturation, heart rate, blood	Mental state assessment of patients within a mental health

Patient group	Minimum required frequency of assessment	Minimum set of vital sign observations	Comments
subacute	intervals for a minimum of 48 hours. Then daily thereafter.	pressure, temperature, level of consciousness, pain score	inpatient unit are to be completed in line with Engagement and Observation in Mental Health Inpatient Units PD2017_025.
Mental health non-acute	Three (3) times per day at eight (8) hourly intervals for a minimum of 48 hours. Then monthly thereafter.	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, pain score	Patients with active comorbid physical health conditions or aged 65 years and over are to have observations no less than weekly and are to have a comprehensive systematic physical assessment completed at least monthly.
Hospital in the Home	At least once during each consultation/visit [17]	To be determined locally based on the models of care and assessment of risk	
Special Care Nursery	Six (6) times per day at four (4) hourly intervals	Respiratory rate, respiratory distress, oxygen saturation, heart rate, temperature, behaviour change*, pain score	
Newborn	**Before leaving the birthing environment** One (1) full set of vital signs observations and a newborn risk assessment completed If perinatal risk factors are identified and/or observations within the blue, yellow or red zone and/or additional criteria present, further observations must be recorded on a Standard Newborn Observation Chart (SNOC) six (6) times per day at four (4) hourly intervals.	Respiratory rate, oxygen saturations, heart rate and temperature	Newborns with low or no identifiable risk factors are to be monitored/assessed in-line with local protocols.
Paediatric inpatients	Six (6) times per day at four (4) hourly intervals	Respiratory rate, respiratory distress, oxygen saturation, heart rate, temperature, level of consciousness, new onset confusion or behaviour change*, pain score	Baseline blood pressure (BP) is required within 24 hours of admission. Additional BPs are to be taken as clinically indicated (PD2010_32)

Patient group	Minimum required frequency of assessment	Minimum set of vital sign observations	Comments
Maternity/ antenatal inpatient	Four (4) times per day at six (6) hourly intervals.	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*. For fetal heart rate monitoring requirements refer to Maternity – Fetal heart rate monitoring GL2018_025	SMOC is recommended for women greater than twenty (20) weeks gestation and less than six (6) week post-partum.
Maternity/ postnatal inpatient with no identified risk factors	**Before leaving the birth environment** One (1) full set of vital signs observations and a maternity risk assessment completed.	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*, accumulated blood loss.	If a woman has observations in a coloured zone or identified risk factors, vital sign observations are to be performed four times per day at six hourly intervals. Women receiving midwifery care in the home are to be monitored according to local protocol, refer to section 4.6.
Maternity/ postnatal inpatient with risk factors	Four (4) times per day at six (6) hourly intervals.	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*, accumulated blood loss.	SMOC is recommended for women greater than twenty (20) weeks gestation and less than six (6) week post-partum.
Inpatient sub-acute/ long stay/ rehabilitation	Twice a day at a maximum interval of 12 hours apart	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*, pain score	If a patient develops an acute medical/ physiological problem the required frequency of observations reverts to a minimum of four (4) times per day at six (6) hourly intervals
Inpatient palliative care	Twice a day at a maximum interval of 12 hours apart	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour change*, pain score	If a patient develops acute medical/physiological problems are managed in line with their goals of care and Resuscitation Plan
Residents in long term care facilities, such as a multipurpose	At least once per month	Respiratory rate, oxygen saturation, heart rate, blood pressure, temperature, level of consciousness, new onset confusion or behaviour	The frequency of observations may change depending on the resident's condition and will be determined locally by the AMO/delegated clinician responsible for the resident's

Patient group	Minimum required frequency of assessment	Minimum set of vital sign observations	Comments
service (MPS)		change*, pain score	care. Additional vital signs may be determined as clinically appropriate for the patient cohort cared for in these settings, such as weight, and monitored on a regular basis.

* Includes an assessment of the patient's behaviour in the context of their developmental age and/or baseline assessment, noting changes in their cognitive function, activity/tone, perception, or emotional state such as abnormal thinking, irritability, agitation, inconsolability and/or delirium.

4.4   Individualised monitoring and assessment plans

It is recommended that patients with clinical needs which differ from approved clinical management guidelines have an individualised monitoring and assessment plan in place.

An individualised monitoring and assessment plan takes into account the patient's clinical situation, including their diagnosis, clinical risks, goals of care and proposed treatment, and specifies the vital signs and other relevant physiological/mental state observations to be monitored, and the frequency of monitoring.

Individualised monitoring and assessment plans, along with the rationale for the plan, are to be documented in the patient's health care record.

Patients, carers and families need to be engaged in the development of an individualised monitoring and assessment plan to ensure that it meets the patient's needs.

An AMO/delegated clinician responsible must authorise any individualised monitoring and assessment plan which varies the vital signs or other observations to be monitored <u>below</u> the minimum requirements outlined in section 4.3, Table 2. This includes when the delegated clinician responsible is a senior medical officer not employed or contracted by the PHO, such as the patient's treating general practitioner.

If a patient with an individualised monitoring and assessment plan has observations within the blue, yellow or red zone, care must be escalated according to the appropriate zone response unless an alternative response is stipulated in their Resuscitation Plan.

Following the initiation of a CERS call, the individualised monitoring and assessment plan need to be reviewed and the frequency of observations increased.

4.5   Alterations to calling criteria

Standard calling criteria (blue, yellow or red zone parameters) may be altered and/or other agreed signs of deterioration identified, based on assessment of the patient's condition and with input from patients, carers and families.

A medical officer may alter the standard calling criteria following assessment of the patient and engagement of patients, carers and families, and **in consultation with the AMO/delegated clinician responsible.**

If the AMO/delegated clinician responsible is not available onsite, a registered nurse/midwife or allied health professional responsible for vital sign observation monitoring may alter calling criteria when prescribed by the AMO/delegated clinician responsible and following assessment of the patient. This process needs to be outlined in the local CERS protocol, along with defined processes for altering calling criteria, as listed in section 5, below.

The local CERS protocol also needs to define processes for altering calling criteria, including:

- Documentation of the rationale for the new calling criteria in the patient's health care record

- Authorisation of the alterations by the AMO/delegated clinician responsible, including when the delegated clinician responsible is a senior medical officer not employed or contracted by the PHO, such as the patient's treating general practitioner

- The minimum timeframe for review of the altered calling criteria.

- Altered calling criteria are to only be used:

- To align the calling criteria with the patient's baseline vital sign observation parameters when they are above or below the standard calling criteria. Establishment of the patient's baseline is to be done in consultation with the patient, carers and/or family and based on assessment of the patient

- If the course of the patient's disease or condition, or recovery from a particular intervention, is expected to be above or below the standard calling criteria

- If the proposed changes to the standard calling criteria will improve detection of patient deterioration.

A 'chronic' alteration may be set to align the calling criteria with the patient's baseline vital sign observation parameters. A chronic alteration may be set for the duration of the patient's episode of care and needs to be formally reviewed by the clinical team responsible for the patient's care during routine assessments. A chronic alteration may be set for patients treated in non-hospital or residential care settings, however time limits for the duration of the alteration must be set at the time the alteration is ordered and documented in the patient's medical record.

An 'acute' alteration may be set to align the calling criteria with the expected progression of a patient's disease or condition. Acute alterations are set for a defined period of time, not longer than 8 hours, before reverting back to the standard calling criteria on the appropriate standard observation chart. Acute alterations are not intended to be used for patients who are cared for in a non-hospital or residential care setting.

Special treatment plans, such as a Resuscitation Plan, which may also alter the response to the red and yellow zone triggers, are to be documented in the patient's health care record.

4.6 Vital sign monitoring for patients in non-hospital/residential care settings

It is expected that patients who are receiving care outside of a hospital or in a residential care setting (such as outpatient clinics, community and primary health care services, midwifery care provided in the home or Hospital in the Home services) are monitored for signs of deterioration and that protocols are in place to escalate care as required.

For patients in these settings, monitoring of vital signs and other observations will depend on the:

- Patient's clinical needs, risks and proposed treatment

- Environment in which care is being delivered

- Scope of practice of the clinician providing care

- Resources available to monitor and document vital signs and other observations

- Capacity of the service to escalate care when required.

Non-hospital and/or residential care settings need to develop local protocols that establish clear expectations for monitoring physiological or mental state deterioration, including the vital signs and other observations that will be monitored, how frequently they will be monitored and the criteria for escalation of care (coloured zones).

Non-hospital and/or residential care facilities may implement a local clinical management guideline or pathway for cohorts of patients who are frequently cared for or based on the model of care that is provided. The minimum expectations for monitoring signs of deterioration need to consider clinical risks and be approved by the local governance system or relevant committee.

Non-hospital and/or residential care settings may also consider using individualised monitoring and assessment plans for each patient. Where individualised monitoring and assessment plans are used in non-hospital/residential care settings, the requirements outlined in section 4.4 apply.

4.7 Palliative care and last days of life

Patients admitted under palliative care services are to have an individualised monitoring and assessment plan and Resuscitation Plan that aligns with their goals of care. When it is identified that a patient under the care of any clinical service/clinical unit is dying or in their last days of life, the use of standard observation charts is not appropriate. The patient's individual monitoring and assessment plan and Resuscitation Plan are to be reviewed in consultation with the patient, carers and family to ensure comfort is observed and, where required, concerns escalated via the local CERS.

Clinicians are to refer to the CEC Last Days of Life Toolkit for appropriate resources to:

- Ensure comfort is observed in patients whose death is expected, such as the Comfort Observation and Symptom Assessment Chart; and

- Facilitate the accelerated transfer for the patient who wishes to die at home.

5   CLINICAL EMERGENCY RESPONSE SYSTEMS

A Clinical Emergency Response System (CERS) is a formalised system for obtaining prompt assistance from appropriately skilled and knowledgeable clinicians when a patient has signs and symptoms of physiological or mental state deterioration.

As the signs and symptoms of deterioration in mental state are often indicative of a physiological/organic condition and not necessarily a sign of an acute mental health condition, the CERS response to these are to be same as for physiological deterioration. Organic causes of deterioration are to be considered prior to accessing specialty expertise from a mental health service.

The CERS needs to:

- Operate 24 hours per day, 7 days per week

- Have the capacity to manage multiple calls at any given time;

- Have contingency plans to account for known or unexpected absences of key personnel;

- Be known and understood by all clinicians.

- Be able to be activated by staff, patients, carers or families.

NSW Health organisations are to develop and implement a local CERS across their organisation which includes:

- Procedures to enable patients, carers and families to directly escalate care within 30 minutes to a clinician who is not routinely involved in the patient's care. These procedures must clearly identify how patients, carers and families may initiate the escalation and what the expected response is. Refer to the CEC's R.E.A.C.H program[22]

- Procedures to systematically and proactively identify patients at increased risk of deterioration, with appropriate mitigation strategies

- Protocols that outline the actions to be taken to escalate care when a patient's observations breach a blue, yellow or red zone, including who will respond and how they are to be contacted

- Procedures to review the provisional diagnosis and/or differential diagnosis by a second clinician following a CERS call, or when deterioration has not been reversed

- Protocols for accessing secure clinical units or clinical services not physically co-located with an acute service that is responsible for responding to a CERS call within agreed timeframes

- Procedures for accessing specialty expertise in alignment with the facility, clinical service or clinical unit's service capability framework or referral network

- Protocols for intra- and inter-facility escalation that clearly identify who to refer to, how to contact them and how the transfer is to be conducted, consistent with the principles outlined in section 5.4

- Defined skills, education and training requirements for clinicians with assigned responsibilities as designated responders that align with the Deteriorating Patient Education Strategy

- Defined roles and responsibilities for team leaders and members of the rapid response team (RRT)

- An agreed set of minimum core emergency equipment and medication consistent with best practice guidelines that is readily available throughout the facility, clinical service or clinical unit in accordance with the organisation-wide risk assessment, and approved by the governance system or relevant committee

- Procedures for orientation and training of staff on how to access and use equipment for advanced resuscitation, including specialist equipment for paediatric, neonatal and maternity patients

- A structured clinical handover tool, such as ISBAR, to communicate critical information, outcomes, alerts and risks during the escalation of care between the clinicians involved

- Requirements for documenting a CERS call, including the outcome of the call, the subsequent medical management and monitoring plan, and a provisional and/or differential diagnosis in the patient's health care record

- Prompt communication with the patient, carers and families about the response to and outcome of any CERS calls.

For facilities, clinical services or clinical units that have a formal arrangement with the NSW Ambulance or who use 'CERS Assist' as part of their escalation framework, the point at which escalation to NSW Ambulance is required must be outlined in the relevant protocols and procedures.

5.1 CERS in specialty areas

Specialty areas with the internal resources to manage clinical emergencies may use a graded and tailored response protocol for patient deterioration that uses a combination of internal specialty expertise and external support to escalate care. Areas that may require a graded and tailored response protocol include emergency departments; maternity wards; neonatal intensive care or special care nurseries; and post-anaesthetic care units (recovery units).

Where a facility, clinical service or clinical unit requires a graded and tailored response protocol, the organisation wide CERS must identify and include these specialty area protocols. A specialty area's response protocol needs to:

1. Identify the area to which the protocol applies

2. Outline the types of deterioration that can be managed without external support and the point at which external support needs to be called

3. Define the roles and responsibilities of both internal and external designated responders in managing, and reversing, patient deterioration

4. Specify the minimum core emergency equipment and medication consistent with best practice guidelines that is to be readily available and the location of these (in accordance with the organisation-wide risk assessment), and approved by the governance system or relevant committee

5. Define the skills, education and training requirements for clinicians with assigned responsibility as a designated responder for that specialty area that align with the Deteriorating Patient Education Strategy

6. Include a structured clinical handover tool, such as ISBAR, to communicate critical information, outcomes, alerts and risks during the escalation of care between the clinicians involved.

5.2 Clinical review process

Prompt and effective clinical review is essential in managing patients who are deteriorating and is to be undertaken (or supervised) by experienced staff.

If a patient's observations enter the yellow zone (based on vital sign observations and/or additional criteria), the yellow zone response instructions on the appropriate standard observation chart, standard clinical tool or approved local clinical management guideline/pathway are to be followed. Unless specified otherwise, the decision to call a clinical review (or other CERS call) is to be made in consultation with the nurse/midwife-in-charge or relevant clinical supervisor. The decision to escalate (or not) is to be documented in the patient's health care record.

For patients in hospital settings, a clinical review is to be undertaken by the clinical team responsible for the patient's care (or another designated responder) within 30 minutes.

Depending on the local CERS protocol, the clinical review may be undertaken by a medical officer on call or an appropriately experienced registered nurse/midwife (RN/RM), preferably First Line Emergency Care Course (FLECC) accredited, or post graduate qualifications in emergency/critical care nursing, or credentialed in the procedures of the relevant specialty.

For patients in non-hospital or residential care settings, initiation of a clinical review must follow local procedure. The timeframe for review, the clinician most appropriate to undertake the review and other related responses need to be locally determined in line with the implemented model of care and based on clinical risks associated with the delivery of care. In these settings, the decision to initiate a clinical review also needs to be made in consultation with a clinical supervisor and documented in the patient's health care record.

5.3 Rapid response process

If a patient's observations enter the red zone (based on vital sign observations and/or additional criteria), the red zone response instructions on the appropriate standard observation chart, standard clinical tool or approved clinical management guideline are to be followed, and a rapid response is to be activated as per the local CERS protocol.

For patients in hospital settings, the nurse/midwife-in-charge or equivalent relevant clinical supervisor must be informed that a rapid response call has been made, and the instructions outlined on the appropriate standard observation chart, standard clinical tool and/or approved local clinical management guideline/pathway need to be followed.

Where a rapid response is called for a patient who is on an end-of-life pathway, and the appropriate level of escalation is unclear, the AMO/delegated clinician responsible is to be called, as well as the patient's carer and/or family.

The RRT members or designated responder/s must urgently attend a rapid response call, assess the patient, treat the underlying cause of deterioration and/or provide interventions to resuscitate the patient.

In small or rural health services, the designated responder may be an appropriately experienced registered nurse/midwife (RN/RM), preferably First Line Emergency Care Course (FLECC) accredited or with post graduate qualifications in emergency/critical care nursing, or credentialed in the procedures of the relevant specialty, or a paramedic who attends as a result of a CERS Assist call.

When responding to the deterioration of a maternity, paediatric or neonatal patient, at least one member of the RRT or designated responder needs to be credentialed in the advanced resuscitation techniques and procedures of that specialty.

A facility, clinical unit or clinical service may implement a graded rapid response process based on the:

- Severity of the patient's condition and the reason for the call. For example, patients with an immediately life threatening condition, such as cardio-respiratory arrest, airway obstruction, stridor, or are unresponsive, are prioritised to a rapid response team, and patients with red zone observations or additional criteria that are not immediately life threatening are attended by a senior registrar or equivalent in the first instance

- Skills required to support a tailored response to a specialty area. For example, a maternity emergency managed by obstetric and midwifery staff who require additional airway support for immediate management and ICU support post-intervention.

This graded response needs to be risk assessed and approved by the relevant local committee/senior management, and clearly defined in the local CERS protocol.

For patients in non-hospital or residential care settings, the initiation of a rapid response must be in accordance with the local procedure. The actions to be taken when a red zone response is triggered need to be locally determined in line with the implemented model of care and based on the clinical risks associated with the delivery of care. In most cases, this will usually mean calling triple zero (000) for NSW Ambulance.

5.4 Patient transfer processes

5.4.1 Intra-hospital transfer processes

Patients with observations in the red or yellow zone can **only** be transferred between clinical units when:

1. The transferring responsible clinician approves the transfer

2. There is an individualised monitoring and assessment plan in place, which may include altered calling criteria

3. The receiving clinical team responsible for the patient's care is advised of the individualised monitoring and assessment plan

4. They have appropriate clinical support during transportation.

5.4.2 Inter-facility transfer processes

For patients requiring transfer for specialist care, the processes for requesting and arranging transfers are outlined in the following documents:

PD2011_031 – *Inter-facility Transfer Process for Adults Requiring Specialist Care*

PD2018_011 – *Critical Care Tertiary Referral Networks & Transfer of Care (ADULTS)*

PD2019_024 – *Adult Mental Health Intensive Care Networks*

PD2019_020 – *Clinical Handover*

PD2019_053 – *Tiered Networking Arrangements for Perinatal Care in NSW*

GL2017_010 – *NSW Paediatric Service Capability Framework*

PD2010_030 – *Critical Care Tertiary Referral Networks (Paediatrics)*

PD2010_031 – *Children and Adolescents Inter-facility Transfers*

GL2016_018 – *NSW Maternity and Neonatal Service Capability Framework*

PD2018_002 – *Service Specifications for Transport Providers, Patient Transport Service*

5.4.3 Transferring patients from non-hospital/residential care settings

Patients in non-hospital or residential care settings who require escalation of care will usually be referred to their general practitioner or an acute health care facility; this may involve transfer via ambulance or other patient transport service.

Staff in non-hospital or residential care settings are to refer to and follow their locally determined procedure for escalating care. Staff must support the transfer process by communicating relevant clinical information to the receiving health care professional or facility through written documentation provided to the patient, carer or family, documenting notes in the patient's health care record or verbally during clinical handover.

This does not include patients who are cared for in the community as an admitted patient of a Hospital in the Home (HITH) service. HITH patients who deteriorate are to be managed as per the requirements outlined in GL2018_020 Adult and Paediatric Hospital in the Home.

6 EDUCATION

This section is to be read in conjunction with the CEC Deteriorating Patient Education Strategy which outlines the minimum training requirements for clinicians who provide direct patient care.

All facilities/clinical services/clinical units are to have a documented local education program that:

- Incorporates patients, carers and families in the co-design and delivery of locally provided deteriorating patient education and training

- Ensures all staff are aware of and know how to activate the local CERS, including contracted staff, locums and clinicians on rotating rosters

- Describes the skills, knowledge, education and training requirements for all clinicians to understand how to engage and partner with patients, carers and families in the recognition and management of deteriorating patients, including cultural awareness and cultural competency training

- Identifies appropriate education and training programs for clinicians to complete that align with the Deteriorating Patient Education Strategy

- Describes the minimum skills, knowledge, education and training requirements on the recognition and management of the deteriorating patient for all clinicians providing direct patient care, including completion of basic life support training

- Describes the skills, experience, education, training and credentialing requirements for clinicians who are members of the RRT or are designated responders, including advanced life support training

- Details the resources allocated to support clinicians to complete the required education and training, including protected time off

- Identifies specialty units that require clinicians to respond to and manage clinical emergencies within their own clinical service/clinical unit, and describe the skills, experience, education and training and credentialing requirements for these clinicians, including team training and the non-technical skills component of the BTF Tier Three Framework

- Outlines the system for ensuring regular educational updates are provided for existing clinicians, and the orientation and training of new clinicians on the recognition and management of the deteriorating patient

- Incorporates the components of the BTF education into other educational activities/opportunities, including: signs of physiological and mental state deterioration; systematic A-G assessment, synthesising assessment findings and observations to guide clinical decision making; expected trajectory of illness; appropriate escalation of care and the appropriate management of the deteriorating patient; structured communication, handover and team work

- Outlines processes to reinforce structured communication techniques and systematic patient assessment in daily clinical practice

- Identifies appropriate performance measures for monitoring satisfactory completion of required education and training

- Describes the roles and responsibilities for the governance of the local education program, including responsibility for developing, implementing and monitoring the program.

7 EVALUATION

All PHOs need to have a measurement strategy in place to monitor the performance and effectiveness of local Deteriorating Patient Safety Net Systems. The measurement strategy is to outline a selection of outcome, process and balancing measures, including the collection and reporting of mandatory quality improvement measures:

- Rapid response call rate per 1,000 acute separations

- Cardio-respiratory arrest rate per 1,000 acute separations.

Advice on collection and reporting of mandatory quality improvement measures, including definitions and methods for collection, is provided by the NSW Ministry of Health as part of the LHD/SHN service agreements. Mandatory quality improvement measures are available on the CEC Quality Improvement Data System (QIDS).

The outcome, process and balancing measures selected as part of the PHO's measurement strategy are to facilitate continuous quality improvement of local Deteriorating Patient Safety Net Systems. Details on developing a measurement strategy are provided in the Deteriorating Patient Measurement Strategy Guide.

A list of example measures that could be used as part of a measurement strategy are provided below. However, these are not exhaustive and facilities/clinical services/clinical units are to select the most meaningful measures for their context.

Outcome measures:

- In-hospital mortality rates

- Percentage of patients surveyed who report a positive experience

Process measures:

- Rates/count/number of clinical review (yellow zone) calls

- Rates/count/number of rapid response (red zone) calls

- Rates/count/number for patient, carer and family (REACH) escalation calls

- Percentage of patients, carers and family members surveyed that know how to raise their concerns and if required make a patient, carer and family escalation (REACH) call

- Percentage of patients with a full set of observations completed at the required minimum frequency

- Percentage of patients with a full set of observations completed at initial assessment and prior to departure from a facility, clinical service or clinical unit

- Percentage of patients that have an increase in their observation frequency following triggering of a coloured zone and/or a CERS call

- Percentage of red zone triggers escalated to a rapid response call

- Percentage of yellow zone triggers escalated to a clinical review (or other CERS) call

- Percentage of patients with a Resuscitation Plan

- Percentage of patients transferred to a higher level of care following a CERS call

- Percentage of patients with alterations to calling criteria

- Percentage of clinical staff that provide direct patient care who have completed their Deteriorating Patient mandatory training

Balancing measure:

- In-hospital length of stay

- ICU length of stay

- ICU admission rates/occupancy rates

- Re-presentation rates.

- When selecting measures to form their measurement strategy, PHOs are to:

- Consider the care provided by the facility, clinical service or clinical unit, the usual patient cohort/s and the patients goals of care

- Ensure measures align with the aims and objectives of the system and any changes/improvements made to it

- Engage with patients, carers and families to consider what factors are meaningful to measure from a patient's perspective.

Performance reports are to be communicated to the LHD/SHN; clinicians and managers; patients, carers and families; and other key stakeholders and include an analysis of the data identifying improvement opportunities and the impact of any improvements implemented by the facility, clinical service or clinical unit/s.

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9   RELATED DOCUMENTS

9.1   National

Australian Commission on Safety and Quality in Health Care

National Safety and Quality Health Service (NSQHS) Standards (second edition)

National Consensus Statement: Essential elements for recognising and responding to acute physiological deterioration (second edition)

Recognising and Responding to Deterioration in Mental State: A Scoping Review

National Consensus Statement: essential elements for safe high quality end of life care

National Consensus Statement: Essential elements for safe high quality paediatric end-of-life care

Delirium Clinical Care Standard

NSQHS Standards User guide for health service organisations providing care for patients with cognitive impairment or at risk of delirium

NSQHS Standards User Guide for Aboriginal and Torres Strait Islander Health

NSQHS Standards User Guide for Health Service Providing Care for People with Mental Health Issues

NSQHS Standards User Guide for Measuring and Evaluating Partnering with Consumers

NSQHS Standards (second edition) User Guide for Governing Bodies

9.2   NSW Health

Clinical Excellence Commission – Between the Flags Project: The Way Forward

Clinical Excellence Commission – R.E.A.C.H Toolkit

PD2012_069   Health Care Records – Documentation and Management

GL2016_018   NSW Maternity and Neonatal Service Capability Framework

GL2018_025   Maternity Fetal Heart Monitoring

GL2018_016   Maternity – Resuscitation of the Newborn Infant

GL2017_018   Maternity - Prevention, Detection, Escalation and Management of Postpartum Haemorrhage (PPH)

IB2008_002   Fetal Welfare, Obstetric Emergency, Neonatal Resuscitation Training

PD2019_053 Tiered Networking Arrangements for Perinatal Care in NSW

PD2017_025   Engagement and Observation in Mental Health Inpatient Units

PD2019_045 Discharge Planning and Transfer of Care for Consumers of NSW Health Mental Health Services

PD2015_004 Principles for Safe Management of Disturbed and/or Aggressive Behaviour and the Use of Restraint

GL2017_010   NSW Paediatric Service Capability Framework

PD2010_034   Children and Adolescents: Guidelines for Care in Acute Care Settings

PD2010_032   Children and Adolescents – Admission to Services Designated Level 1-3 Paediatric Medicine and Surgery

PD2010_031   Children and Adolescents – Inter-Facility Transfers

GL2014_007   NSW Rural Paediatric Emergency Clinical Guidelines Second Edition

PD2010_030   Critical Care Tertiary Networks (Paediatrics)

PD2011_038   Children and Infants – Recognition of a Sick Baby or Child in the Emergency Department

PD2018_011   Critical Care Tertiary Referral Networks and Transfer of Care (ADULTS)

PD2011_031   Inter-Facility Transfer Process for Adults Requiring Specialist Care

GL2020_004   Rural Adult Emergency Clinical Guidelines

PD2014_030   Using Resuscitation Plans in End of Life Decisions

GL2005_057   End-of-Life Care and Decision-Making

GL2005_056   Advance Care Directives (NSW) – Using

GL2018_020   Adult and Paediatric Hospital in the Home Guideline

PD2018_002   Service Specifications for Transport Providers, Patient Transport Service

PD2019_020   Clinical Handover

IB2018_048   2018-19 KPI and Improvement Measure Data Supplement

GL2018_025   Maternity – Fetal Heart Rate Monitoring

PD2018_010   Emergency Department Patients Awaiting Care

PD2014_025   Departure of Emergency Department Patients

10 APPENDICES

10.1 Example roles and responsibilities for the Deteriorating Patient Safety Net System

AMO/delegated clinician responsible (i.e. consultant / staff specialist / VMO) are to:

- Provide leadership to the clinical team responsible for the patient's care, to ensure they respond as per the local CERS

- Support processes for, and awareness of, patient, carer and family escalation

- Ensure every patient, taking their diagnosis and proposed treatment into account, has an individualised assessment and monitoring plan specifying the vital sign observations and other relevant observations to be recorded and the frequency of these

- Involve patients, families and carers in the development and review of documented individualised assessment and monitoring plans, medical management plans and resuscitation plans, to ensure they align with the patient's goals of care

- Ensure any alterations to calling criteria are reviewed for appropriateness, formally authorised, and documented in the patient's health record

- Ensure that a medical management plan (including the monitoring plan) is reviewed and documented for all patients following a CERS call (clinical review or rapid response).

Members of the clinical team responsible for the patient's care are to:

- Inform patients, carers and families of processes available to escalate their concerns about deterioration

- Involve patients, carers and families in the establishment of baseline observation parameters for patients to inform individualised assessment and monitoring plans and potential alterations to calling criteria

- Involve patients, carers and families in the establishment of their communication preferences and needs

- In consultation with the AMO/delegated clinician responsible, document a clear individualised assessment and monitoring plan that specifies the vital signs and other relevant observations to be recorded and the frequency of the observations

- Identifies patients at increased risk of deterioration and deploys strategies to mitigate the risks

- Discuss with, and seek authorisation from, the AMO/delegated clinician responsible for any alterations to calling criteria and document the rationale for these alterations in the patient's health care record

- Review and confirm the provisional diagnosis and/or proposed differential diagnosis and medical management plan, including an individualised assessment and monitoring plan, for all patients following a clinical review or other CERS call, and communicate critical information about a patient's care to the AMO/delegated clinician responsible and other clinicians, as appropriate

- Communicate critical information, outcomes, alerts and risks to patients, carers and families following a clinical review and/or rapid response in a timely manner

- Escalate care as per the local CERS.

Nursing/Midwifery Unit Manager/supervisor or delegate (i.e. nurse/midwife-in-charge) is to:

- Support processes for, and awareness of patient, family and carer escalation

- Provide leadership in monitoring compliance with the minimum requirements of the Deteriorating Patient Safety Net System, such as completion of vital sign observations at the required frequency

- Determine the need for a clinical review for patients whose vital sign observations are in the yellow zone, when additional yellow zone criteria is present or when clinicians, patients, carers or family are concerned about a patient's deterioration, and call for a clinical review or other CERS call as required

- Continue to escalate care as per the local CERS in the event that a clinical review is not attended by the clinical team responsible for the patient's care, or designated responder, within 30 minutes

- Work in partnership with, and communicate critical information to, the RRT during a rapid response call

- Support staff to complete relevant deteriorating patient education programs, including the allocation of protected time to attend required training

- Identify opportunities to reinforce structured communication techniques and systematic patient assessment as covered in the BTF education program during routine clinical practice

- Provide feedback to the local Deteriorating Patient governing committee(s) regarding implementation of the five elements of the Deteriorating Patient Safety Net System.

Nursing/midwifery/allied health staff (within the related scope of practice) are to:

- Be aware of, and know how to activate, the local CERS

- Inform patients, carers and families about how to escalate their concerns about deterioration

- Conduct a systematic patient assessment, including documenting a full set of vital signs observations on an approved standard observation chart, at the frequency specified in their individual monitoring plan. In the absence of an individual

monitoring plan, refer to the appropriate approved local clinical management guideline/pathway, or the minimum requirements outlined in Table 2 of this policy.

- When a coloured zone is triggered, follow the relevant coloured zone response instructions on the standard observation chart, standard clinical tool or approved local clinical management guideline/pathway.

- Increase the frequency of observations and initiate appropriate clinical care when a patient's systematic assessment triggers a blue zone response on the standard observation chart, standard clinical tool or approved local clinical management guideline/pathway.

- Promptly notify the Nursing/Midwifery Unit Manager or delegated nurse/midwife-in-charge when a patient's systematic assessment triggers a yellow zone response on the standard observation chart, standard clinical tool or approved local clinical management guideline/pathway.

- Initiate a rapid response call and notify the Nursing/Midwifery Unit Manager or delegated nurse/midwife-in-charge when a patient's systematic assessment triggers a red zone response on the standard observation chart, standard clinical tool or approved local clinical management guideline/pathway, or serious concern exists about a patient's deterioration

- Document actions taken in relation to recognition, and management of deterioration in the patient's health care record

- Work in partnership with, and communicate critical information to, the RRT during a rapid response call

- Communicate critical information, outcomes, alerts and risks of any clinical review or rapid response calls to the Nursing/Midwifery Unit Manager or delegated nurse/midwife-in-charge, and the clinical team responsible for the patient's care, if/when they are not involved in the process.

Rapid response teams are to:

- Ensure patients are attended to urgently when required as part of the local CERS

- Work in partnership with, and communicate critical information to the clinical team responsible for the patient's care during a rapid response call

- Ensure all rapid response calls are documented in the patient's health care record and outcomes are handed over to the clinician and the clinical team responsible for the patient's care

- Communicate critical information, outcomes, alerts and risks to patients, carers and families following a rapid response in a timely manner

- Have a process to challenge or confirm the provisional diagnosis and/or proposed differential diagnosis, medical management and monitoring plan for all patients following a rapid response.

10.2 Response instructions on the standard observations charts for hospital settings

10.2.1 Blue zone response

If a patient has any observations which breach the blue zone on a standard observation chart, standard clinical tool or approved local clinical management guideline/pathway, clinicians are to:

- Initiate appropriate clinical care

- Increase the frequency of observations, as indicated by the patient's condition.

If a clinician is worried or unsure whether to initiate a CERS call, consult with the nurse-/midwife-in-charge or relevant clinical supervisor to decide whether a CERS call is to be made, considering the following:

- What is usual for the patient and are there documented alterations to calling criteria?

- Does the abnormal observation reflect deterioration in the patient?

- Is there an adverse trend in observations?

10.2.2 Yellow zone response

If a patient has any observations or additional criteria which breach the yellow zone observations or additional criteria on a standard observation chart, standard clinical tool or approved local clinical management guideline/pathway, clinicians are to:

- Initiate appropriate clinical care

- Repeat and increase the frequency of vital sign observations, as indicated by the patient's condition

- Consult promptly with the nurse /midwife-in-charge or relevant clinical supervisor to decide whether a clinical review (or other CERS) call is to be made.

Together with the nurse/midwife-in-charge or relevant clinical supervisor, consider the following:

- What is usual for the patient and are there documented alterations to calling criteria?

- Does the trend in observations suggest deterioration?

- Is there more than one yellow zone observation or additional criterion?

- Are you concerned about your patient?

If a clinical review is called:

- Reassess the patient and escalate according to the local CERS if the call is not attended within 30 minutes or there is increasing concern

- Document a systematic A-G assessment, reason for escalation, treatment and outcome in the patient's health care record

- Inform the AMO/delegated clinician responsible that a call was made as soon as it is practicable.

Where required, outcomes of the clinical review are to be documented into any relevant NSW Health, LHD/SHN or local database for capturing key performance indicators.

A structured communication tool, such as ISBAR, is to be used when providing clinical handover to the AMO/delegated clinician responsible and/or the designated responder(s).

The patient, carer and family are to be informed that a clinical review was activated and the outcome of this review.

10.2.3 Red zone response

If a patient has any red zone observations or additional criteria on a standard observation chart, standard clinical tool or approved local clinical management guideline/pathway, a rapid response call needs to be made. In addition, the clinicians are to:

- Initiate appropriate clinical care
- Inform the nurse/midwife-in-charge or relevant clinical supervisor that a rapid response call has been initiated
- Repeat and increase the frequency of vital sign observations, as indicated by the patient's condition
- Document a systematic A-G assessment, reason for escalation, treatment and outcome in the patient's health care record
- Inform the AMO/delegated clinician responsible that a call was made as soon as it is practicable.

Members of the RRT or designated responder(s) are to attend urgently (as per the local CERS protocol) to assess the patient; treat the underlying cause of deterioration and/or provide interventions to resuscitate the patient.

The RRT leader is responsible for ensuring the outcome of the rapid response and the resultant medical management plan is entered into the patient's health care record.

Where required, outcomes of the rapid response call are also to be entered into any relevant NSW Health, LHD/SHN or local database for capturing key performance indicators.

A structured communication tool, such as ISBAR, is to be used when providing clinical handover to the AMO/delegated clinician responsible and/or the designated responder(s).

The patient, carer and family are to be informed that a rapid response was activated and the outcome of this response.