



# Recognising and Responding to Acute Deterioration Guideline

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## 1. Purpose

This guideline can be used as a resource or can be adapted to meet the local needs of Health Service Providers (HSPs) to recognise and respond to acute deterioration promptly and appropriately. Acute deterioration includes physiological changes as well as acute changes in mental state.

The failure to recognise and respond appropriately to acute deterioration has been highlighted as a significant factor in a number of adverse events within Western Australia (WA).

This non-mandatory guideline provides additional information to support the minimum requirements established in the mandatory, [Recognising and Responding to Acute Deterioration Policy](#) which forms part of the Clinical Governance Safety and Quality Framework.

HSPs are encouraged to assess potential risks using a risk management approach in the development of local policies to recognise and respond to acute deterioration as per the Recognising and Responding to Acute Deterioration Policy. HSPs are able to refer to the WA Health Clinical Risk Management Guidelines or local risk management guidelines for further information.

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## 2. Applicability

This guideline should be considered for all types of patients who may be experiencing acute deterioration related to a physiological or mental state, including medical, surgical, maternity, mental health patients, and those receiving end of life care. Staff working in outpatient and community health settings of a general or mental health purpose is encouraged to be aware of the potential for acute deterioration (physiological or mental) within their client base. HSPs must have adequate systems, processes and governance in place to ensure appropriate recognition, response and escalation of care to enable patient safety.

For specific information in relation to deterioration of a person's mental state staff may refer to the Australian Commission for Safety and Quality Health Care's National Consensus Statement [Recognising and responding to deterioration in mental state: A scoping review July 2014](#); [Recognising Signs of Deterioration in a Person's Mental State February 2018](#); and the [Delirium Care Standard](#).

## 3. Assessment: Minimum Requirements for Recognising and Responding to Acute Deterioration

### 3.1 Physiological Observations and Mental State Assessment

Regular measurement and documentation of physiological observations and mental state assessment are essential requirements for recognising and responding to acute deterioration.

The following minimum physiological observations are recommended for all patients, to identify acute physiological deterioration:

- respiratory rate
- oxygen saturation
- oxygen flow rate ( if on oxygen)
- heart rate
- blood pressure
- temperature
- level of consciousness (Alert, Voice, Pain, Unresponsive – AVPU).

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Please refer to the [Recognising Signs of Deterioration in a Person's Mental State February 2018](#) and the [Delirium Care Standard](#) for further information on observations of acute deterioration in mental state.

## **3.2 Minimum Processes for Managing Delirium and Cognitive Impairment**

The minimum processes for managing delirium and cognitive impairment should include but are not limited to:

- identifying patients at risk of developing delirium. High-risk groups include:
  - patients aged 65 years and over (45 years and over for Aboriginal and Torres Strait Islanders)
  - patients with known cognitive impairment
  - patients with a severe medical illness or hip fracture
- screening patients for cognitive impairment using a validated tool and documenting results, especially those that identified as falling into the high risk group
- investigating and treating the causes of mental state deterioration
- using strategies that may assist in the care of at-risk patients, for example, preventing and treating pain, reducing sleep disturbance, review of medications used, treating dehydration, and infection sources
- communicating and sharing information with patients, families and carers
- providing a supportive environment that is aimed at addressing the needs of the patient and family holistically
- processes that manage transitions of care effectively
- training and education of staff
- resources such as appropriate equipment should be readily available and accessible

## **3.3 Frequency of Observations**

### **3.3.1 Physiological Observations**

Physiological observations should be recorded and acted upon by staff who have been trained to undertake these procedures and understand their clinical relevance. In addition to regular monitoring of the patient's minimum physiological observations,

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critical occasions where physiological observations may be required are:

- patients experiencing an episode of acute deterioration or are at risk of acute deterioration
- at time of admission or initial assessment
- prior to inter-hospital or intra-hospital transfer

### **3.3.2 Mental State Assessment**

The minimum requirement for frequency of a mental state assessment is at time of admission if clinically indicated and appropriate, and then as required should any behavioral changes be observed.

### **3.3.3 Adjustments to Frequency of Observations**

Adjustments to the frequency of observations may occur:

- if the clinical status of the patient changes resulting in a review and assessment of the patient by a clinician. It is recommended that this is documented in the patient's notes and monitoring plan
- if on transfer of care, following review and assessment of the patient status by the receiving clinician, an adjustment to the frequency of observations is recommended. This should be documented in the patient's notes and monitoring plan
- when decisions to limit or cease some physiological observations are made for patients who are in the terminal phase. Changes to the minimum set of physiological observations may be recorded in the monitoring plan. Care during the terminal phase will rely on frequent assessment, individualised care planning and continuous review.

## **3.4 Paediatrics**

It is important to use an appropriate paediatric early warning assessment tool, approved by the health care facility, to recognise and respond to clinical deterioration in children. Assessments are made in line with advanced paediatric life support criteria (APLS).

The tool should measure and document:

- Respiratory rate
- Respiratory Distress

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- Oxygen requirements
  - Oxygen saturation
  - Temperature
  - Heart rate
  - Blood pressure
  - Capillary refill time
  - Level of consciousness.

Age specific charts are available for:

- <1 year
- 1-4 years
- 5-11 years
- $\geq$  12 years.

It is recommended that these charts include built-in triggers to prompt early recognition of clinical deterioration and detail actions required to escalate care.

Certain children may already be compromised due to their clinical diagnosis, treatment and/or pre-existing conditions. These children may require a modification to the accepted parameters (i.e. abnormal observations are expected). It is recommended, that all modifications be made by the child's primary medical team, documented on the front of the chart and reviewed regularly according to the individual patient's need. It is not the intention that clinical judgement is overridden by these modifications.

### **3.5 Neonates**

Neonates in the immediate post-partum/early newborn period are at increased risk for acute deterioration, when a combination of factors may lead to an increase in acute life threatening events. These include newborn factors such as incomplete transition, poor arousal response and compromised infant position on maternal stomach or breast. For this reason, close monitoring of the newborn after birth is important, and should include the following:

- documentation of APGAR scores
- observations at 60, 120 and 180 minutes:
- temperature (Normal 36.5 - 37.4°C)

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- heart rate (Normal HR 120- 160bpm)
  - respiratory rate (Normal RR 30-60/min).

***The assessment of a newborn's colour after birth is subjective and unreliable.***

Consideration should be given to continuous oxygen saturation monitoring for the first two hours of post-partum life.

#### **4. Observation and Response Chart**

Observations may be documented on a Health Service endorsed observation and response chart. It is recommended that a graphical format will be used by all clinicians to record data on the Observation and Response Chart.

The HSP Executive through the appropriate delegated committee is encouraged to endorse:

- alternative observation and response charts if appropriate
- specialty specific chart

#### **5. Monitoring Plan**

It is recommended that every patient have a personalised monitoring plan that may be:

- reviewed at least daily and when there is an acute deterioration episode experienced by the patient
- completed and documented at the time of initial assessment and admission.

It is recommended that the plan includes at a minimum:

- physiological observations and mental state assessment (if clinically appropriate) to provide a baseline assessment for the early recognition and response to acute deterioration
- frequency of observations.

The monitoring plan should reflect an assessment of contributing factors that increase the risk to patient's safety including but not restricted to patient's diagnosis, comorbidities, treatment. It should be discussed with the patient, family, carers and significant others.

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It is recommended that the monitoring plan reflect decisions made in an Advance Health Directive, Advance Care Plan, Goals of Patient Care Form or Care Plan for the Dying Person. As part of partnering with patients, families and carers, collaborative partnerships are recommended as part of the delivery of quality care. As part of this process, discussing the implications of these decisions with the patient, family/and carer (where appropriate) and documenting the discussion in the patient's medical record is strongly encouraged

## **6. Escalation Protocols**

The escalation protocol sets out the organisational response required for different levels of abnormal physiological measurements or mental state. The protocol applies to all patients at all times. For patients experiencing end of life care, clinicians are encouraged to use the goals of life care plan to document the level of intervention required should the patient's status change due to an acute illness or as part of the progress of their illness.

## **7. Escalation Response**

The HSP is encouraged to have a formal documented escalation procedure that sets out actions required to respond to different parameters of abnormal observations including physiological observations and changes to mental state.

The actions prescribed for an escalated response in the escalation response section of the observation and response chart should be aligned with local escalation procedures. These actions can be changed by the HSP depending on locally available resources.

## **8. Modifications**

The clinical escalation (response criteria) on the Observation and Response Chart cannot be changed except in exceptional circumstances following a full review of the patient and their monitoring plan. There must be sound clinical justification for the modification. It is strongly recommended that this decision which is documented in the patient's notes should only be made by a consultant or senior medical officer (latter applicable to West Australian Country Health Service).

It is recommended that the modification section of the Observation and Response Chart be completed. The following information should be documented in the patient's medical notes, dated and signed:

- name of the consultant/senior medical officer authorising the modification.

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- details of the clinical review
  - physiological parameter changes and the justification for the modification
  - a clinical management plan including:
    - a monitoring plan
    - an escalation plan that includes actions required for the altered parameters
    - the time frame for which the modification is valid. It is recommended that the timeframe should not exceed 24 hours in an acute setting; and 72 hours for mental health and community facilities.

## **9. Rapid Response System**

All HSPs should have a documented process for rapid response. It is strongly recommended that all rapid response systems at all times should include access to one clinician (on site, or in proximity) who are trained in advanced life support. Pre-requisite skills to be a member of a rapid response team needs to be defined by the HSP.

At a minimum, members of the rapid response team should be able to:

- respond in an agreed time frame
- assess the patient competently providing a provisional diagnosis
- implement appropriate clinical intervention
- stabilise and maintain the patient
- authorise the transfer of the patient to an appropriate facility or unit if required
- access other clinical support, access senior medical advice in a timely manner from the appropriate specialty
- provide treatment-limiting decisions as appropriate.

## **10. Rapid Response Process**

The minimum requirements of the process are:

- a patient meeting medical emergency response criteria should not be transferred inter-hospital or intra-hospital unless they are assessed accompanied and monitored by a clinician with advanced life support skills
- when a medical emergency call has been made, the doctor with primary responsibility for the care of the patient must be notified

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- clinicians providing emergency assistance must communicate in an appropriate, detailed and structured way, for example ISoBAR, with the attending medical officer or team
  - events surrounding the medical emergency call and the actions resulting from the call must be dated, timed, documented and signed by the attending medical officer in the patient's notes.

## **11. Rapid Response Escalation Criteria**

Criteria for calling a rapid response should be included in the escalation protocol and should include:

- the patient's observations falling into the medical emergency trigger zone of the observation chart or when the cumulative score for a medical emergency is reached (see Appendix 1 for the Medical Emergency Response Adult Calling Criteria)
- Failure to respond to a medical review request within time frames specified in the endorsed escalation protocol
- Patient/family/carer concern.

## **12. Not for Cardiopulmonary Resuscitation**

Not for Cardiopulmonary Resuscitation (NFCPR) decision does not imply withdrawal of all treatment.

A NFCPR order is the responsibility of senior clinicians, and the decision should be made early in the patient's admission or when the patient's prognosis changes and documented in the patient's medical record. Documentation must include the rationale for the decision and communication about the decision with the patient, family and/or carer.

In these situations, patients should still be monitored using an observation and response chart. Medical Emergency Response must continue to be activated for criteria other than cardiopulmonary arrest. Refer to site/health service guidelines for additional information regarding NFCPR decisions, including those related to end-of-life care and terminal care.

## **13. Goals of Patient Care**

A Goals of Patient Care Form prompts and facilitates proactive shared decision making

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between the clinician, patient, person responsible and/or family/carer(s), which is aligned to the patient's preferences, needs, values and wishes. It establishes the most medically appropriate, agreed goal of patient care that will apply in the event of the patient's clinical deterioration.

The form should be completed and signed by a senior doctor, early in the patient's admission and with urgency if the risk of acute deterioration is significant. The goal selected on the form will apply in the event of acute deterioration. The form should also include:

- rationale for the decided goal of care
- details of the discussion with the patient, the "person responsible", that is the designated person to contact or speak with family and carer
- the patient's preferences.

## **14. End of Life Care**

Recognising when a patient is approaching the end of life is essential to delivering appropriate, compassionate and timely end-of-life care. Irrespective of diagnosis and care setting, patients should receive safe, high quality, comprehensive and coordinated care at End-of-Life.

Health care professionals are encouraged to discuss end of life care preferences with patients through processes including advance care planning and the Goals of Patient Care. Engaging in open, sensitive and honest discussions about care preferences and acknowledging the limitations of treatment during expected deterioration will assist patients to live well and die well.

Care of the dying is urgent care. Timely recognition of transition to the terminal phase and specific revision of care as the patient deteriorates using the Care Plan for the Dying Person will support the unique needs of the patient, family and carers during this phase.

For further information about end of life care refer to [End of Life Care](#)

## **15. Clinical Communication**

Clinical Communication focuses on two streams: clinical handover and communication with patient, family and carer.

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## 15.1 Clinical Handover

The minimum requirements for a clinical handover are:

- all clinical handover processes must comply with the elements identified in the WA [Clinical Handover Policy](#)
- handover processes should identify patients who are at particular risk of deterioration and include communication of information relevant to their management. This information must be documented, and the person receiving the handover needs to review this documentation and ensure that it is understood.

## 15.2 Communication with the Patient, Family and/or Carer

Health Service Providers can access patient- clinician communication resources at [Patient Clinician Communication](#).

The minimum requirements for communication with patients, family, carers and significant others should include:

- recognition that patient safety and delivery of quality care is patient-centered and focused
- education of patients, family, carers and significant others if able and willing by clinical staff caring for the patient. The education should include awareness of the process they can use to escalate care of the patient if they are concerned
- communication by clinicians with patient, family, carers and significant others to gain information about signs of acute deterioration specific to the patient and documentation of this information in the care plan
- information regarding care, clinical observations and vital signs
- a response (verbal or formally documented) to patient preferences regarding Advanced Care Directives, Common Law Directives, Advanced Care Plans, Enduring Power of Guardianship and Goals of Patient Care
- if the patient's decision-making capacity is compromised, clinicians are able to refer to [WA Health Consent to Treatment Policy](#) regarding the decision-making hierarchy
- information about advanced care planning can be accessed the [Advanced Care Planning website](#).

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## 16. Technological Systems and Solutions

Electronic systems can be used to automatically monitor vital signs and alert clinicians. It is recommended that the introduction of technological systems and solutions be introduced with the approval of the committee delegated by the HSP Executive to oversee recognising and responding to acute deterioration. Prior to the introduction of technological systems, the following should be considered:

- the introduction of technological solutions should be based on evidence of efficacy and cost as well as potential safety and quality risks
- prior to implementation the education and technical support requirements should be considered along with an explicit study of adverse events.

Technological solutions should not place a barrier between the clinician and the patient and should conform to the elements specified in the [Recognising and responding to deterioration in mental state: A scoping review July 2014](#); [Recognising Signs of Deterioration in a Person's Mental State February 2018](#); and the [Delirium Care Standard](#).

## 17. Health Service Providers: Compliance, Monitoring and Evaluation

Each HSP and WA health site should have appropriate governance arrangements in place to oversee the implementation and ongoing review of acute deterioration activities at a site level. It is recommended that all WA health facilities collect and review data locally to assess compliance with the elements of the Recognising and Responding to Acute Deterioration Policy.

It is recommended that data collection by sites at the local level should reflect requirements of the Recognising and Responding to Acute Deterioration Mandatory Policy, the local HSP policy for acute recognising and responding to acute deterioration and the National Standard requirements for recognising and responding to acute deterioration.

**The Health Service/Site Acute Deterioration Committee or its equivalent should:**

- have appropriate responsibilities delegated to it and be accountable for its decisions and actions
- monitor data collected
- provide advice about the allocation of resources
- review education resources
- include consumers, clinicians, managers and executives.

It is recommended that each hospital or facility report any issues/risks to the Health Service Executive through the appropriate delegated committee or its equivalent to review and action concerns.

## 18. References:

- [Clinical Risk Management Guidelines for the Western Australian Health System](#)
- [The National Safety Quality Healthcare Standards Recognising and Responding to Clinical Deterioration](#)
- [The Australian Commission on Safety and Quality in Health Care National Consensus Statement: Essential Elements for Recognising and Responding to Clinical Deterioration](#)
- [The End of Life Framework: A state-wide model for the provision of comprehensive care at end of life in Western Australia 2016](#)
- [The National Consensus Statement: Essential Elements for Safe High Quality End of Life care](#)
- [Recognising and Responding to Deterioration in Mental State: A scoping review July 2014](#)
- [Delirium Clinical Care Standard July 2016](#)
- [MP 0053/17 WA Clinical Alert \(MedAlert\) Policy](#)
- [WA Health Consent to Treatment Policy](#)
- [A better way to care: safe and high quality care for patients with cognitive impairment \(dementia and delirium\) in hospital](#)
- [Patient-Clinical Communication Information Sheet for Health Service Providers](#)

## 19. Definitions

The following definitions are relevant to this policy.

Term	Definition
Acute Deterioration	Physiological, psychological or cognitive changes that may indicate a decline in the patient's health status. This may occur over a period of hours to days.
Acute Care	Acute care is (admitted patient) care in which the clinical intent or treatment goal is to manage labour (obstetric), cure illness or provide definitive treatment of injury, perform surgery, relieve symptoms of illness or injury, reduce severity of an illness or injury, protect against

	exacerbation and/or complication of an illness and/or injury which could threaten life or normal function, perform diagnostic or therapeutic procedures.
Advance Health Directive	Instructions that consent to, or refuse, the future use of specified medical treatments (also known as healthcare directive, advance plan or other similar terms).
Advanced Life Support (ALS)	Nationally accredited or hospital based training that gives the provider skills to apply the Australian Resuscitation Council ALS Algorithm, manage peri-arrest situations, provide and instruct others in Cardio-Pulmonary Resuscitation as well as safe defibrillation techniques and manage an airway on the compromised patient.
Carer	A carer is a person who provides ongoing care or assistance to another person who has a disability, a chronic illness or a mental illness, or who is frail.
Clinician	A health care provider, trained in a health profession. This term encompasses medical practitioners, nurses, midwives, dentists, paramedics and allied health professionals such as physiotherapists, occupational therapists, speech pathologists, dieticians, radiographers, social workers, psychologists, pharmacists and all others in active clinical practice, but includes clinicians-in-training and junior practitioners who must work under supervision.
Escalation Criteria	Alternatively called 'calling' criteria. Escalation criteria identifies when care needs to be escalated. Trigger zones are coded to draw attention when the escalation criteria are met.
Escalation Protocol	The protocol that sets out the organisational response required for different levels of abnormal physiological measurements or other observed deterioration. The protocol applies to care for all patients at all times.
Health Service	Grouping of public health services and hospitals that are operated and managed collectively. For the purposes of this policy, Health Service refers to all WA Department of Health-funded health services, specifically, North Metropolitan, South Metropolitan, Child and Adolescent and WA Country Health Service.
Mental State	Broadly understood to refer to a person's intellectual capacity, emotional state, and general mental health based on clinical observations and interviews. Mental state comprises mood, behaviour, orientation, judgement, memory, problem-solving ability and contact with reality.
Patient	A person who receives care in a health service organisation.

## 20. Appendix

### Rapid Response Calling Criteria

Calling Criteria for a Rapid Response for acute deterioration for adult patients has been developed to assist clinicians to identify patients at risk. The criteria indicated is the minimum calling criteria. Sites may choose to apply more stringent calling criteria or choose to employ additional Rapid Response calling criteria (i.e. a score on some Adult Deterioration Detection System [ADDS] charts will trigger a rapid response).

#### Calling Criteria – Adults

Note changes in any one or more:	Physiology
Airway	Threatened
Breathing	Respiratory rate $\leq 4$ Respiratory rate $\geq 36$ O2 Saturation $\leq 84$
Circulation	Pulse rate $\leq 40$ or $\leq 30$ s Pulse rate $\geq 140$ Systolic blood pressure $< 90$ Systolic blood pressure $< 70$ for maternity patients
Neurology	Sudden fall in level of consciousness (Fall in Glasgow Coma Scale (GCS) of $> 2$ points) Repeated or prolonged seizures
Other	Any patient who you (or a family member/carer) are seriously concerned about that does not fit the above criteria

#### Paediatrics

All paediatric (including newborn infants) patients must have their observations documented on a Health Service endorsed observation and response chart which must include criteria for calling a MER.

#### Acute Deterioration in Mental State

The key factor in recognising deterioration in a person's mental state is noticing changes in a person's behaviour, cognitive function, perception, or emotional state. While there are a number of typical signs that can indicate deterioration, these can vary significantly, and individual changes that are reported or observed are critical in recognising

deterioration in a person’s mental state. People can also experience deterioration in their mental state due to other causes, the most prevalent of which is delirium. It is critical that clinicians are aware of this and are able to screen for potential physical causes when a person deteriorates in their mental state.

If a person has previously experienced deterioration in mental state, they typically have a good understanding of specific factors that can precipitate deterioration for them, as well as factors that contribute to maintaining wellbeing. They will also be likely to have knowledge about what responses are effective should they experience deterioration in their mental state.

Typical signs include but are not limited to:

<b>Reported</b>
Verbal commands to do harm to self and others
Suicidal ideation
Attempt to self-harm
Threat of harm to others
Situational crisis
Psychotic symptoms (hallucinations, delusions, paranoid ideas)
Mood disturbance (depression, elevated or irritable mood)
Unable to wait safely.
<b>Observed</b>
Agitation
Restlessness
Bizarre/disorientated behaviour
Confusion
Ambivalence about treatment
Withdrawn/uncommunicative.

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## For information on Mental Health Assessment refer to:

- Recognising and Responding to Deterioration in Mental State: A Scoping Review.  
<https://www.safetyandquality.gov.au/publications/recognising-and-responding-to-deterioration-in-mental-state-a-scoping-review/>
- Delirium Clinical Care Standard July 2016.  
<https://www.safetyandquality.gov.au/wp-content/uploads/2016/07/Delirium-Clinical-Care-Standard-Web-PDF.pdf>.

## 21. Guideline owner

Enquiries relating to this Guideline may be directed to:

Patient Safety and Clinical Quality  
Email: [safetyandquality@health.wa.gov.au](mailto:safetyandquality@health.wa.gov.au)

## 22. Review

This non-mandatory guideline will be reviewed and evaluated as required to ensure relevance and recency. At a minimum, it will be reviewed within three years after first issue and at least every three years thereafter.

Version	Effective from	Effective to	Amendment(s)
NMG1	May 2018	May 2021	Original version

The review table indicates previous versions of the non-mandatory guideline and any significant changes.



## 23. Approval

This non- mandatory guideline has been approved and issued by the Director General of the Department of Health.

<b>Approval by</b>	Dr David Russell-Weisz, Director General, Department of Health
<b>Approval date</b>	Day, Month, Year
<b>Published date</b>	Day, Month, Year
<b>RMR#</b>	<insert Records Management Reference Number>



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