essential element 2

ESCALATION OF CARE

escalation of care

the problem

Understanding how to respond to abnormal physiological measurements is a complex process. It can be difficult for health professionals to know when and who to call.

Delays in responses to clinical deterioration are associated with poorer outcomes for patients.

Responses to clinical deterioration can be incorrect or delayed if an escalation protocol is not available.

Patients have experienced delays in treatment, despite families identifying and reporting concerns of clinical deterioration to members of the healthcare team.

goals of this essential element

Each facility and clinical area is aware of the care it can safely provide, including when and how to escalate care locally, or to another facility.

Patients receive appropriate care and/or emergency assistance when abnormal physiological observations and assessments occur.

Patients' needs and wishes are respected when planning care and responding to clinical deterioration.

Patients, families and carers can escalate care.

what you need to do

Provide an escalation policy tailored to the role and characteristics of the facility.

Develop an escalation protocol that provides a graded response to abnormal physiological observations and include it in the escalation policy.

Consider advance care directives and treatment-limiting decisions when escalating care.

Provide a process to enable patients, families and carers to escalate care.

common terms used in this essential element

Advance care directive: instructions that consent to, or refuse, the future use of specified medical treatments (also known as health care directive, advance plan or other similar terms).

Escalation policy: a document outlining the principles and processes for escalating care for patients whose condition is deteriorating. This includes information on a facility's escalation protocol, levels of care that can be provided locally, and when care should be escalated to another facility. All escalation procedures and protocols are linked to the policy statement.

Escalation protocol: a document that describes the actions required for different levels of abnormal physiological measurements or other observed deterioration. The escalation protocol contains details of a facility's chosen track and trigger system and is linked to the escalation policy.

Track and trigger systems: systems designed to provide clinicians with an objective decision-making process for recognising and responding to altered physiological observations.

Treatment-limiting decisions: orders, instructions or decisions that involve the reduction, withdrawal or with-holding of specified medical treatments.

Triggers: abnormalities in physiological observation measurements, aggregated scores or other clinical assessments that require an escalation of care according to the escalation protocol.

essential element 2: escalation of care

2.1 A formal documented escalation protocol is required that applies to the care of all patients at all times.

2.2 The escalation protocol should authorise and support the clinician at the bedside to escalate care until the clinician is satisfied that an effective response has been made.

2.3 The escalation protocol should be tailored to the characteristics of the acute care facility, including consideration of issues such as:

- size and role (such as whether a tertiary referral centre or small community hospital)
- location
- available resources (such as staffing mix and skills, equipment, remote telemedicine systems, or external resources such as ambulances)
- potential need for transfer to another facility.

2.4 The escalation protocol should allow for a graded response commensurate with the level of abnormal physiological measurements, changes in physiological measurements or other identified deterioration. The graded response should incorporate options such as:

- increasing the frequency of observations
- appropriate interventions from the nursing and medical staff on the ward
- review by the attending medical officer or team
- obtaining emergency assistance or advice
- transferring the patient to a higher level of care locally, or to another facility.

2.5 The escalation protocol should specify:

- the levels of physiological abnormality or abnormal observations at which patient care is escalated
- the response that is required for a particular level of physiological or observed abnormality
- how the care of the patient is escalated
- the personnel that the care of the patient is escalated to, noting the responsibility of the attending medical officer or team
- who else is to be contacted when care of the patient is escalated
- the timeframe in which a requested response should be provided
- alternative or back up options for obtaining a response.

2.6 The way in which the escalation protocol is applied should take into account the clinical circumstances of the patient, including both the absolute change in physiological measurements and abnormal observations, as well as the rate of change over time for an individual patient.

2.7 The escalation protocol may specify different actions depending on the time of day or day of the week, or for other circumstances.

2.8 The escalation protocol should allow for the capacity to escalate care based only on the concern of the clinician at the bedside in the absence of other documented abnormal physiological measurements (‘staff member worried’ criterion)

2.9 The escalation protocol should allow for the concerns of the patient, family or carer to trigger an escalation of care.

2.10 The escalation protocol should include consideration of the needs and wishes of patients with an advanced care directive or where other treatment-limiting decisions have been made.

2.11 The escalation protocol should be promulgated widely and included in education programs.

STEP 1 roles and responsibilities

Who is responsible?
How does this element apply to your role(s)?
What clinical areas does this element apply to?

A variety of health professionals are involved in escalation of care to respond to clinical deterioration. To change practice and improve systems, health professionals need to determine who will be responsible for undertaking the tasks required for this essential element.

table 3 ▸ ROLES AND RESPONSIBILITIES RELATING TO ESCALATION OF CARE

	People involved in people involved in escalation of care	
Clinical areas involved in escalation of care	**Role**	**Responsibility**
An escalation policy should apply across the entire facility. The policy should be operational in: • emergency departments • intensive care units or high dependency units • general wards and specialty areas • maternity units • paediatric units • mental health units • operating theatre recovery units • other clinical areas where patients receive acute care treatments (e.g. outpatient departments, ambulatory care)	Consumers, patients, families and carers	• Use agreed escalation policies when concerns exist • Participate in developing escalation protocols and policies
	Non-clinical workforce	• Use agreed escalation policies when concerns exist • Participate in developing information and processes for the non-clinical workforce to escalate care when concerned
	Clinical workforce	• Understand and follow escalation protocols and policies • Use track and trigger systems and escalate care until satisfied with the response • Educate patients, families and carers on the escalation system • Participate in developing, implementing and evaluating escalation protocols and policies
	Educators	• Develop and implement education for health professionals related to: – escalation protocols and policies – track and trigger systems – patient and family escalation of care • Develop and implement education programs for patients, family and carers on how to escalate care • Participate in evaluating escalation protocols and policies
	Health professionals with responsibility for policy or quality improvement	• Define the type of care each service can provide, considering their roles and characteristics (e.g. equipment), and include in the escalation policy • Include information about retrieval services and processes for external transfer of patients in the escalation policy • Decide on the number of levels of abnormality the escalation protocol will use • Develop trigger thresholds that specify a minimum of two levels of abnormality for each of the following patient groups: – medical and surgical patients – paediatric patients – obstetric patients • Develop responses for each trigger threshold relevant to the level of abnormality • Develop and implement evaluation processes for this essential element • Develop and implement a process for clinicians to contact the patient's attending medical officer or senior hospital executive • Develop and implement a system for patients, families and carers to escalate care • Involve the clinical and non-clinical workforce, patients, families and carers in developing escalation policies

table 3 ▸ CONTINUED...

	People involved in people involved in escalation of care	
Clinical areas involved in escalation of care	**Role**	**Responsibility**
	Health service managers	• Implement, evaluate and improve escalation protocols and policies • Educate the clinical and non-clinical workforce on the use of escalation protocols and policies • Authorise and support clinicians, and patients, families and carers, to escalate care until they are satisfied with the response
	Health service boards, executives and owners	• Assign responsibility, personnel and resources to support development, implementation and evaluation of: – an escalation policy tailored to the characteristics of the acute care facility – an escalation protocol that provides graded response to clinical deterioration in all acute care areas – systems for patients, families and carers to escalate care • Support managers to implement these protocols and policies in their areas • Authorise and support clinicians, patients, families and carers to escalate care until they are satisfied with the response

implementation tip

Developing escalation policies and protocols

- Escalation protocols require supportive information to operate effectively, including a clear statement of the services each clinical area can provide. This information forms part of the facility's overall escalation policy
- Deciding on the type of track and trigger system to use requires agreement within wards and clinical areas across the entire facility
- Triggers and responses may also vary between clinical areas, depending on the level of care each area provides and the available resources. Identify clinicians from each specialty area who have the knowledge and skills to help reach agreement on these decisions
- Patients, families and carers are an important source of information when developing escalation policies. Remember to involve patients, families or carers in this work.

STEP 2 self-assessment and planning tool

Use the self-assessment tool to identify gaps in your systems for escalation of care and develop an action plan.

Prioritise your changes.

The self-assessment and planning tool has been designed to assess one clinical area, or an entire facility's current practice, in relation to this essential element. A modifiable electronic version of this tool, and other supporting tools to help answer the self-assessment questions, are available on the Commission's web site.

The action plan for this essential element begins on page 83. Follow the instructions in the self-assessment and planning tool to complete the action plan.

NAME OF WARD OR AREA BEING ASSESSED:

task 1 **Develop an escalation policy tailored to the role and characteristics of the facility**		**Data or documentation that proves the criteria have been met** **Type of data or name of document**
AGREEMENT Is there agreement on which clinical conditions you can safely manage?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of agreement' in your action plan	
Is there agreement on what services can be provided or are available (internal and external)?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of agreement' in your action plan	
PROCESS OR POLICY Is there a policy outlining: • the level of care you can safely provide • when care should be escalated to a higher level locally or to another facility • the location and availability of services (internal and external)?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of process/ policy' in your action plan	
RESOURCES Are resources available to transfer patients to a higher level of care locally, or to another facility?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of resources' in your action plan	
KNOWLEDGE Do clinicians receive education on the escalation policy?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of knowledge' in your action plan	
SYSTEMS TO SUPPORT MONITORING AND EVALUATION Are deaths, adverse events and external transfers reviewed and evaluated?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of monitoring and evaluation' in your action plan	

Where is it kept?	Are these policies/processes/ resources operating as planned? Does your data demonstrate effective operation at all times?
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan

NAME OF WARD OR AREA BEING ASSESSED:

⊙ task 2 **Develop an escalation protocol that provides a graded response to abnormal physiological observations and include in the escalation policy**		**Data or documentation that proves the criteria have been met** **Type of data or name of document**
AGREEMENT Is there agreement on the type of track and trigger system to use?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of agreement' in your action plan	
Does this system specify a minimum of two levels of abnormality?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of agreement' in your action plan	
PROCESS OR POLICY Are trigger thresholds available for each level of abnormality?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of process/ policy' in your action plan	
Have you included a trigger to escalate care based only on clinical concern?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of process/ policy' in your action plan	
Are processes in use that enable clinicians to escalate care until they are satisfied?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of process/ policy' in your action plan	
RESOURCES Are responses for each trigger threshold available?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of resources' in your action plan	
Is there access at all times (either on site or in close proximity) to a clinician who can practise advanced life support?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of resources' in your action plan	
KNOWLEDGE Do clinicians receive education on the escalation protocol?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of knowledge' in your action plan	
Is a flow diagram of the escalation protocol available at the point of care?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of knowledge' in your action plan	
SYSTEMS TO SUPPORT MONITORING AND EVALUATION Is the effectiveness of escalation protocols, trigger thresholds and responses evaluated?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of monitoring and evaluation' in your action plan	

Where is it kept?	Are these policies/processes/ resources operating as planned? Does your data demonstrate effective operation at all times?
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
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	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan

NAME OF WARD OR AREA BEING ASSESSED:

task 3 Consider advance care directives and treatment-limiting decisions when escalating care		Data or documentation that proves the criteria have been met Type of data or name of document
AGREEMENT Is there agreement on how advance care directives are identified?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of agreement' in your action plan	
PROCESS OR POLICY Is there a process to individualise trigger thresholds and responses for patients for whom treatment-limiting decisions have been made?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of process/ policy' in your action plan	
RESOURCES Are tools for documenting advance care directives available?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of resources' in your action plan	
Are tools for documenting treatment-limiting decisions available?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of resources' in your action plan	
Are tools for documenting individualised escalation protocols available?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of resources' in your action plan	
KNOWLEDGE Do clinicians receive education on advance care directives, treatment-limiting decisions and individualised escalation protocols?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of knowledge' in your action plan	
SYSTEMS TO SUPPORT MONITORING AND EVALUATION Are advance care directives, treatment-limiting decisions and individualised escalation protocols evaluated?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of monitoring and evaluation' in your action plan	

Where is it kept?	Are these policies/processes/ resources operating as planned? Does your data demonstrate effective operation at all times?
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan
	YES ▸ WELL DONE! Continue to monitor NO ▸ Why not? What are the barriers? Add these to your action plan

NAME OF WARD OR AREA BEING ASSESSED:

task 4 Provide a process to enable patients, families and carers to escalate care		Data or documentation that proves the criteria have been met Type of data or name of document
AGREEMENT Is there agreement on the criteria and method for patients, families and carers to escalate care?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of agreement' in your action plan	
PROCESS OR POLICY Are processes available for informing patients, families and carers how to escalate care?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of process/ policy' in your action plan	
RESOURCES Does a clinician(s) capable of assessing, providing initial therapeutic interventions and escalating care to health professionals with advanced life support skills, respond to escalation calls triggered by patients, families and carers?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of resources' in your action plan	
KNOWLEDGE Do clinicians receive education on escalation systems for patients, families and carers?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of knowledge' in your action plan	
SYSTEMS TO SUPPORT MONITORING AND EVALUATION Are patient, family and carer escalation systems evaluated?	☐ YES ▸ Fill in next two columns ☐ NO ▸ Tick 'Lack of monitoring and evaluation' in your action plan	

Where is it kept?	Are these policies/processes/ resources operating as planned? Does your data demonstrate effective operation at all times?
	☐ YES ▸ WELL DONE! Continue to monitor ☐ NO ▸ Why not? What are the barriers? Add these to your action plan
	☐ YES ▸ WELL DONE! Continue to monitor ☐ NO ▸ Why not? What are the barriers? Add these to your action plan
	☐ YES ▸ WELL DONE! Continue to monitor ☐ NO ▸ Why not? What are the barriers? Add these to your action plan
	☐ YES ▸ WELL DONE! Continue to monitor ☐ NO ▸ Why not? What are the barriers? Add these to your action plan
	☐ YES ▸ WELL DONE! Continue to monitor ☐ NO ▸ Why not? What are the barriers? Add these to your action plan

action plan ▸ ESCALATION OF CARE

NAME OF WARD OR AREA BEING ASSESSED:

what do you need to do?		how will you do it?
Task not yet achieved	Why has this task not been achieved (barriers)? What actions are needed?	Go to the recommended section of this guide for information on tasks and actions. List the tools and resources from the guide to address this gap here. Also consider other resources that may be available to you to address this gap.
task 1 Develop an escalation policy tailored to the role and characteristics of the facility	☐ Lack of agreement ▸ DECIDE ▸ p88 ☐ Lack of process/policy ▸ DEVELOP ▸ p89 ☐ Lack of resources ▸ RESOURCE ▸ p91 ☐ Lack of knowledge ▸ EDUCATE ▸ p92 ☐ Lack of monitoring and evaluation ▸ EVALUATE ▸ p93	
OTHER POSSIBLE BARRIERS:		
task 2 Develop an escalation protocol that provides a graded response to abnormal physiological observations and include in the escalation policy	☐ Lack of agreement ▸ DECIDE ▸ p97 ☐ Lack of process/policy ▸ DEVELOP ▸ p99 ☐ Lack of resources ▸ RESOURCE ▸ p102 ☐ Lack of knowledge ▸ EDUCATE ▸ p105 ☐ Lack of monitoring and evaluation ▸ EVALUATE ▸ p107	
OTHER POSSIBLE BARRIERS:		
task 3 Consider advance care directives and treatment-limiting decisions when escalating care	☐ Lack of agreement ▸ DECIDE ▸ p112 ☐ Lack of process/policy ▸ DEVELOP ▸ p113 ☐ Lack of resources ▸ RESOURCE ▸ p114 ☐ Lack of knowledge ▸ EDUCATE ▸ p116 ☐ Lack of monitoring and evaluation ▸ EVALUATE ▸ p116	
OTHER POSSIBLE BARRIERS:		
task 4 Provide a process to enable patients, families and carers to escalate care	☐ Lack of agreement ▸ DECIDE ▸ p120 ☐ Lack of process/policy ▸ DEVELOP ▸ p122 ☐ Lack of resources ▸ RESOURCE ▸ p123 ☐ Lack of knowledge ▸ EDUCATE ▸ p124 ☐ Lack of monitoring and evaluation ▸ EVALUATE ▸ p125	
OTHER POSSIBLE BARRIERS:		

OTHER COMMENTS AND PLANS:

Use the information from the self-assessment and planning tool to complete the action plan. The action plan links the barriers identified by the self-assessment and planning tool with specific actions, tools and resources to address them.

Who will be responsible?	When will this happen? Consider undertaking actions that are low cost, easy to implement and support meeting the *National safety and quality health service standards* first

STEP 3 information and resources

Use the information and resources in this guide to help implement your action plan.

For each task, the following actions may be required: Decide, Develop, Resource, Educate and Evaluate

Each of the tasks for this essential element is discussed in detail in this section. Each task includes a brief summary of its importance and a series of actions that can be taken to complete it. Links to resources are included in Appendix C and additional tools to support implementation are available on the Commission's web site.

key tasks
for escalation of care

task 1
Develop an escalation policy tailored to the role and characteristics of the facility

task 2
Develop an escalation protocol that provides a graded response to abnormal physiological observations and include in the escalation policy

task 3
Consider advance care directives and treatment-limiting decisions when escalating care

task 4
Provide a process to enable patients, families and carers to escalate care

why this task is important

This task is needed because:

- delays in diagnosis and treatment can occur if clinicians are unable to locate or access the services a patient needs
- each acute care facility has different resources and therefore different capacities to safely manage and care for patients with different clinical conditions
- an escalation policy informs and supports escalation of care during clinical deterioration.

An appropriate and timely response to clinical deterioration relies on clinicians' knowledge of the treatment patients need, and the availability and location of services to provide the treatment. Clinical deterioration can mean that new care and new treatments are needed, which may not be available in the clinical area or facility that the patient is currently in. Similarly, facilities may not have access to appropriately skilled clinicians to provide the care that particular conditions require.

Patients may experience delays in receiving the care they need if clinicians are unsure of:

- the types of clinical conditions a facility has the capacity to manage
- where to locate the services needed to provide care (internal and external)
- how to access each service.

An escalation policy provides this information.

Escalation policies need to consider the size and role of each facility, and its location and available resources. They should also specify when a patient's care should be escalated to another facility. Most tertiary hospitals can provide access to specialist services and higher levels of care, such as high-dependency and intensive care units. However, smaller rural and metropolitan hospitals are likely to need systems to escalate care to external service providers. Delays in treatment can occur in the absence of clear criteria for escalating care.

learning from coronial inquests

Consequences of delayed action

Kieran Watmore was a fit and previously healthy 17-year-old admitted to a regional hospital for treatment of severe tonsillitis. His oxygen saturation was recorded as 88% at 2:00 am but no action was taken. Kieran was declared dead at 7:42 am.

'The deceased should not have died when he did and had robust action been taken at the time of his ongoing deterioration, which commenced at some time after 10:00 pm and was manifest by 2:00 am, he would not have died when he did.'[1]

how to complete this task

DECIDE → DEVELOP → RESOURCE → EDUCATE → EVALUATE

task 1 – develop an escalation policy tailored to the role and characteristics of the facility		
DECIDE	▶▶▶	Identify clinical services and resources available (internal and external) Decide on the type of service each clinical area or facility can provide
DEVELOP	▶▶▶	Develop information to be included in the escalation policy
RESOURCE	▶▶▶	Provide resources for transferring patients to a higher level of care locally, or to another facility
EDUCATE	▶▶▶	Educate clinicians on the escalation policy
EVALUATE	▶▶▶	Review deaths, adverse events and external transfers

DECIDE

IDENTIFY CLINICAL SERVICES AND RESOURCES AVAILABLE (INTERNAL AND EXTERNAL)

DECIDE ON THE TYPE OF SERVICE EACH CLINICAL AREA OR FACILITY CAN PROVIDE

Each facility, or clinical area within a facility, should undertake a brainstorming exercise to identify the clinical services and resources that are available (internal and external) and decide on the type of care that can be safely provided. This process requires senior executives, managers and clinicians from all professions to consider:

- the types of clinical conditions staff are trained for, and skilled at managing
- the equipment available to diagnose, monitor and provide ongoing treatment for each clinical condition.

If necessary, processes must be in place to allow the timely transfer of a patient to another facility. This is necessary when clinical areas and facilities do not have clinicians trained and skilled at managing specific types of conditions, or when they do not have the equipment necessary to diagnose, monitor or provide ongoing treatment for specific conditions.

practice point

What conditions or level of care can your facility manage?

Facilities should consider a range of clinical conditions and access to services when deciding on the level of care that can safely be provided. These can be grouped into the broad categories shown below.

Paediatrics
- Orthopaedics
- Surgery
- Neurology
- Trauma
- Neonates
- High dependency/intensive care

Neurology
- Intracranial haemorrhage
- Ischaemic stroke
- Surgery

Renal
- Peritoneal dialysis
- Haemodialysis

Diagnostics
- Magnetic resonance imaging (MRI)
- Computer tomography (CT)
- Ultrasound
- X-ray
- Angiography

Obstetrics
- High-risk pregnancies
- Caesarean

Other
- Surgery (emergency, trauma, elective)
- Oncology
- Orthopaedics
- Intensive care, cardiology and emergency units
- Bariatric care
- Trauma

DEVELOP

DEVELOP INFORMATION TO BE INCLUDED IN THE ESCALATION POLICY

The decisions made on the level and type of service that can safely be provided will inform the escalation policy. Information from each clinical area should outline:

- the level of care that can be safely provided
- when care of the patient should be escalated to a higher level of care, either locally or to another facility
- the location of services (internal and external), including times of operation and how to make contact, including the location of diagnostic services and contact details of specialist clinicians.

This information must be reviewed periodically and updated, as changes to services occur. The following practice point provides an example of how a rural facility might communicate the location and operation times of services in an escalation policy.

Escalation policies need to consider the size and role of each facility, its location and available resources. They should also specify when a patient's care should be escalated to another facility.

practice point

Example of summary of clinical services provided and how to contact them

Facilities should consider a range of clinical conditions and access to services when deciding on the level of care that can safely be provided. These can be grouped into the broad categories shown below.

Type of service	Location and hours of operation	How to access this service	Process for transfer to external facility
ADULT ORTHOPAEDICS	On-site 24 hour service	Contact orthopaedic registrar #999 or orthopaedic surgeon on call (see medical roster available in ward areas)	Contact orthopaedic registrar **#999** or orthopaedic surgeon on call (see medical roster available in ward areas)
PAEDIATRIC ORTHOPAEDICS	On-site 24 hour service	Phone **9999 999 999** Area paediatric roster also available www.medicalroster	Admitting orthopaedic specialist must accept care. Discuss transfer requirements with accepting clinician
NEUROLOGY/ NEUROSURGERY All intracranial haemorrhage to be discussed with neurosurgeon urgently	On-site management of ischaemic stroke Admit general medicine Off-site neurology phone consultation available if required Off-site management of intracranial haemorrhage: contact neurologist and neurosurgeon urgently	Neurology phone **0800 2100** Neurosurgical phone **2100 0800** Area neurology roster also available www.medicalroster	Admitting neurologist/ neurosurgeon must accept care. Discuss transfer requirements with accepting clinician
GENERAL MEDICINE	On-site 24 hour service	Contact general medicine registrar on call #999 (see medical roster available in ward areas)	
RADIOLOGY	Monday–Friday 0800–2100 hrs 2100–0800 hrs Saturday, Sunday and public holidays 0900–2100 hrs 2100hrs–0900 hrs	Radiology ext: **9999** On call technician **9999 999 999** Radiology ext: **9999** On call technician **9999 999 999**	MRI available from Local Diagnostics (external) Mon–Sat 0900–1700 hrs Ph: **(99) 9999 9999** Urgent MRI – call tertiary hospital **(99) 9999 9999**

RESOURCE

PROVIDE RESOURCES FOR TRANSFERRING PATIENTS TO A HIGHER LEVEL OF CARE LOCALLY, OR TO ANOTHER FACILITY

Facilities need to ensure that resources are available to safely transfer patients to a higher level of care locally, or to other sites. Processes for transfer should be included in the escalation policy to prevent delays and ensure that patients are transferred safely, with suitably skilled clinicians and equipment to manage their condition.

The escalation policy should include information on:

- the types of services available to transfer patients (intra-hospital transfers, hospital transport, ambulance services, specialist critical care retrieval services)
- the level of care each transfer service provides
- when and how to contact the service
- who is required to contact the service.

It is useful to include a flow diagram that summarises the process for identifying which service to use.

practice point

Minimum standards for the intra-hospital transport of critically ill patients

The Australian and New Zealand College of Anaesthetists, the Joint Faculty of Intensive Care Medicine and the Australasian College for Emergency Medicine have developed minimum standards for the transport of critically ill patients. The standards outline the key principles for the safe transport of patients, including administrative requirements, equipment, monitoring, education and evaluation requirements. The standards can be accessed from:

http://www.acem.org.au/media/policies_and_guidelines/min_stand_intrahosp_crit_ill.pdf

http://www.anzca.edu.au/resources/professional documents/ps52.html

comments from colleagues

Liaising with retrieval services can help development of the escalation policy

I get the point that people may call too soon, but we can always say, yeah we don't need to come yet and once they're in our system we've got a pretty good means of following that patient and chasing and directing them to better things. Time and time again we've got someone who clearly, typically has a head injury where they… it's screamingly obvious that they're too sick for the local facility, but we're not contacted until the diagnosis is made when we don't need a diagnosis to address this most of the time.'

Medical director, retrieval service, focus groups, 2010

'I see our involvement as making sure calling for that retrieval is occurring in the right part of the escalation process. My role would very much be to advise on… calling us at this point is way too late, you need to bring it back to this point. That is the role I see I can play.'

Focus group facilitator: 'You've raised a good point. Facilities may come up with an escalation plan and perhaps not realise they need to be calling retrieval services earlier.'

'I think it's essential that we're involved, as the local health service did, by inviting myself along to their discussions. The initial draft for the regional hospitals in the district suggested calling us way too early for non-life-threatening immediate critical transfer. So it works both ways, sometimes facilities might come up with wanting to call for an aircraft way too early, and other times it might be too late.'

Nurse educator, retrieval services, focus groups, 2010

EDUCATE

EDUCATE CLINICIANS ON THE ESCALATION POLICY

Clinicians need education on the content of escalation policies to ensure they are understood and used appropriately. Education can be provided during orientation, in morbidity and mortality meetings, during individual peer review, and as part of other programs about deteriorating patients.

implementation tip

Supporting education on escalation policies

- Facilities may like to consider inviting local retrieval services to provide education on external transfers and retrievals
- Keep a copy of your escalation policy near emergency equipment. It can be referred to quickly and easily during episodes of clinical deterioration, helping to reinforce and remind staff of the escalation process.

Education can be provided during orientation, in morbidity and mortality meetings, during individual peer review, and as part of other programs about deteriorating patients.

EVALUATE

REVIEW DEATHS, ADVERSE EVENTS AND EXTERNAL TRANSFERS

All clinical areas should review deaths, adverse events, and unplanned internal and external transfers to higher level care facilities to identify whether the escalation policy has been followed, or if improvements are needed. Key questions to ask include the following:

- Was the escalation policy followed?
- Were there any delays in accessing internal services?
- Were there any delays in accessing external services?

Facilities will need to identify barriers to the use of the escalation policy and access to services, and develop strategies for improvement. Depending on the barriers, strategies for improvement may include process redesign, additional resources, further information on availability of clinical services, or education on the correct use of the escalation policy.

Facilities will need to identify barriers to the use of the escalation policy and access to services, and develop strategies for improvement.

implementation tip

Escalation and retrieval services

Facilities should consider asking retrieval services to participate in evaluating escalation policies. This may involve establishing communication pathways for raising concerns, or including retrieval services in peer review processes such as morbidity and mortality meetings.

why this task is important

This task is needed because:

- patients who deteriorate can experience delays in treatment if clinicians are unsure of the levels of physiological abnormality at which care should be escalated
- a graded response to abnormal physiological observations provides treatment to patients earlier, potentially minimising the interventions required to stabilise them.

Understanding when and how to respond to abnormal physiological measurements is a complex process. It requires knowledge of:

- which measurements indicate abnormality for a patient
- appropriate treatment for the abnormality
- which clinicians have the skills to provide this treatment
- who is available to provide this treatment, considering the time of day or day of the week
- how to contact the appropriate clinicians
- the appropriate timeframe for clinicians to respond
- alternative or backup options for obtaining a response.

It can be difficult for clinicians – especially those who are new to a facility – to successfully navigate the system and respond appropriately to varying degrees of abnormal physiological observations or assessments.

Track and trigger systems help with this process by providing clinicians with an objective decision-making process for recognising and responding to altered physiological observations or assessments (see *Essential element 1: Measurement and documentation of observations*). These systems form part of the escalation protocol, and should be included in the facility's overall escalation policy.

Track and trigger systems specify different levels of abnormal physiological parameters, or combinations of parameters that indicate abnormality, and outline the response or action required when abnormalities are reached or deterioration is identified.[2] A graded response to abnormal physiological parameters aims to provide clinical care and treatments to patients during the early stages of clinical deterioration, before the onset of critical illness and serious adverse events.

Many Australian hospitals use track and trigger systems in escalation protocols that identify only one level of abnormality – the high or emergency level that commonly corresponds to medical emergency team (MET) criteria. However, patients who receive a MET call have a greater risk of dying in hospital than patients who do not.[3] This emphasises the importance of early intervention to prevent deterioration and the need for MET calls to be made. By identifying lower levels of abnormality and including these in escalation protocols, facilities can treat patients whose condition is deteriorating earlier, potentially improving outcomes and minimising the interventions needed to stabilise them.[4]

A graded response to abnormal physiological parameters aims to provide clinical care and treatments to patients during the early stages of clinical deterioration, before the onset of critical illness and serious adverse events.

practice point

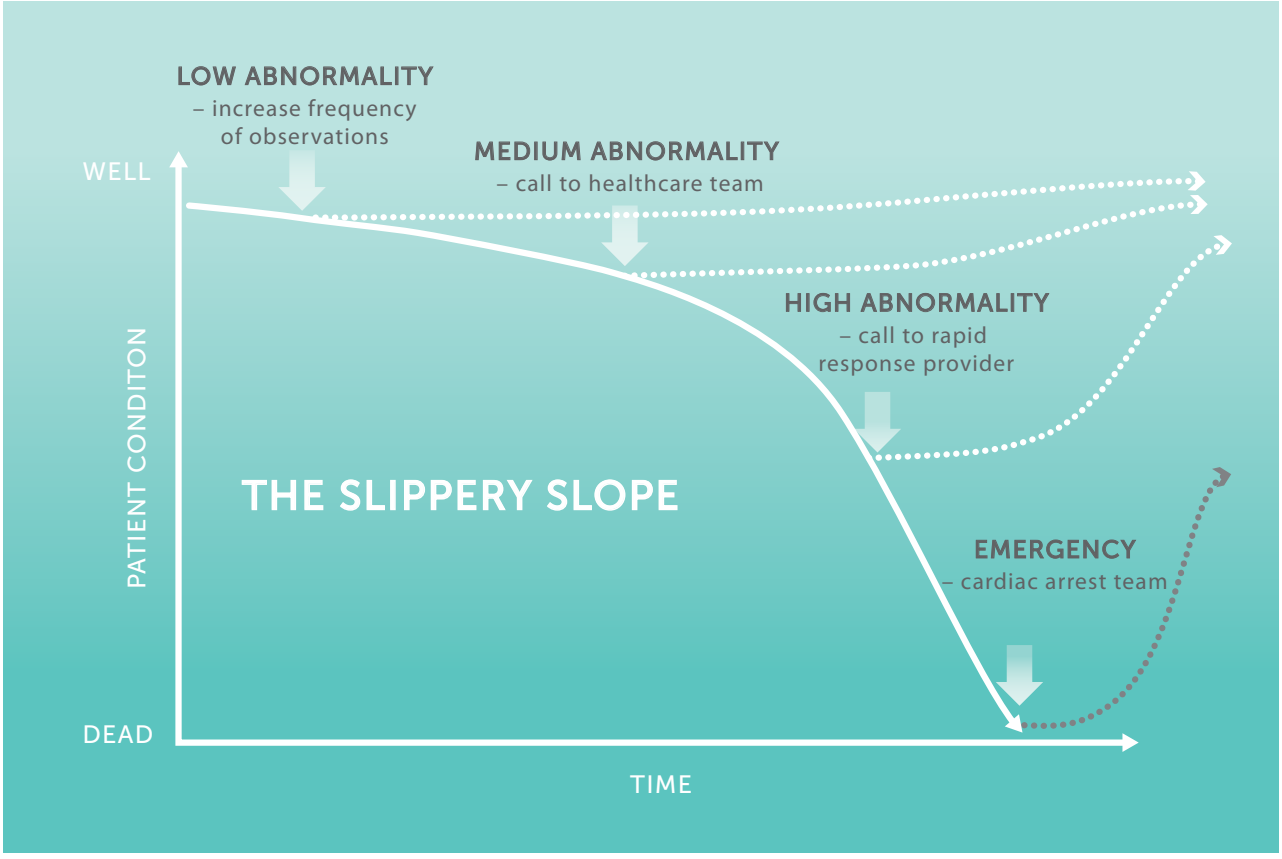
Levels of abnormality

The National Institute for Health and Clinical Excellence in the United Kingdom identifies three levels of abnormality in physiological parameters and assessments. Graded responses to clinical deterioration are then developed based on these levels of abnormality. Examples are provided below.

Level of abnormality	Response
LOW	Increased frequency of observations and senior nurse review
MEDIUM	Urgent call to the healthcare team with primary responsibility for the patient Simultaneous call to clinicians with core competencies for acute illness. This could include an advanced practice nurse or a specialist trainee in an acute medical or surgical specialty.
HIGH	Emergency call to team with critical care competencies and diagnostic skills. The team should include a doctor with advanced airway management and resuscitation skills who is skilled in assessing critically ill patients. This should be an immediate response.

All patients with cardiac arrest, threatened airway or seizure require immediate emergency assistance, bypassing the graded response system. These patients receive immediate treatment in the same way as patients who have been identified as having a high level of abnormality.[5]

The figure below demonstrates the various levels of abnormality and examples of graded responses.



Adapted from C. Pain, NSW Clinical Excellence Commission, personal communication, 2010

how to complete this task

DECIDE | DEVELOP | RESOURCE | EDUCATE | EVALUATE

task 2 – develop an escalation protocol that provides a graded response to abnormal physiological measurements and include in the escalation policy

DECIDE	▶▶▶	Decide on the number of levels of abnormality to be used with your chosen track and trigger system
DEVELOP	▶▶▶	Develop trigger thresholds for each level of abnormality Include a trigger to escalate care based only on concern Develop processes enabling clinicians to escalate care until they are satisfied
RESOURCE	▶▶▶	Develop responses for each level of abnormality, considering patient needs and local resources
EDUCATE	▶▶▶	Educate clinicians on the escalation protocol Provide a flow diagram of the escalation protocol at the point of care
EVALUATE	▶▶▶	Evaluate the effectiveness of trigger thresholds and responses

DECIDE

DECIDE ON THE NUMBER OF LEVELS OF ABNORMALITY TO BE USED WITH YOUR CHOSEN TRACK AND TRIGGER SYSTEM

Before developing graded responses to abnormal physiological measurements, health professionals need to determine the type of track and trigger system they will use (single parameter, aggregated scoring or combination system). Information on different types of track and trigger systems is included in *Essential element 1: Measurement and documentation of observations*.

Many track and trigger systems with different numbers of levels of abnormality are available. Comparisons between systems are difficult, and the ideal number of levels of abnormality to improve patient outcomes is not known. However, there is evidence that delays in calling for emergency assistance are associated with poorer outcomes,[4] and the consensus statement recommends that systems use two or more levels of abnormality to promote early identification and management of clinical deterioration.[2]

Two different examples of track and trigger systems are provided in the following practice point. They include the level of physiological abnormality associated with each trigger threshold and the responses required.

Many track and trigger systems with different numbers of levels of abnormality are available. Comparisons between systems are difficult, and the ideal number of levels of abnormality to improve patient outcomes is not known.

practice point

Integration of different levels of abnormality and graded responses within two track and trigger systems

Level of abnormality	Physiological observations	Range of physiological observations that correspond to the graded level of abnormality	Type of track and trigger system		
			Single parameter system	Aggregated scoring system	
				Scoring	Response
LOW	Respiratory rate	25–29 breaths per minute	Patients with one or more observations in these ranges are reviewed by a senior nurse	Each observation that falls in these ranges scores 1 point	Add all scores together to find the total score for the patient Total scores of 4–5 require senior nurse review Total scores of 6–7 require registrar review Total scores of ≥8 require rapid response system call
	Oxygen saturation	90–94%			
	Systolic blood pressure	100–109 or 170–199 mmHg			
	Heart rate	110–119 beats per minute			
	Temperature	≤35 °C or 38.1–39.0 °C			
	Consciousness	Responsive to voice			
MEDIUM	Respiratory rate	5–9 or 30–35 breaths per minute	Patients with one or more observations in these ranges are reviewed by the registrar	Each observation that falls in these ranges scores 2 points	Add all scores together to find the total score for the patient Total scores of 4–5 require senior nurse review Total scores of 6–7 require registrar review Total scores of ≥8 require rapid response system call system call
	Oxygen saturation	85–89%			
	Systolic blood pressure	90–99 or ≥200 mmHg			
	Heart rate	40–49 beats per minute or 120–139 beats per minute			
	Temperature	≥39.1 °C			
	Consciousness	Responsive to pain			
HIGH	Respiratory rate	≤4 or ≥36 breaths per minute	Patients with one or more observations in these ranges require a rapid response system call	Each observation that falls in these ranges scores 3 points	Add all scores together to find the total score for the patient Total scores of 4–5 require senior nurse review Total scores of 6–7 require registrar review Total scores of ≥8 require rapid response system call
	Oxygen saturation	≤84%			
	Systolic blood pressure	≤89 mmHg			
	Heart rate	≤30 beats per minute or ≥140 beats per minute			
	Temperature	NA			
	Consciousness	Unresponsive			
EMERGENCY	Any respiratory arrest, cardiac arrest, threatened airway or prolonged seizure requires an emergency response call.				

DEVELOP

DEVELOP TRIGGER THRESHOLDS FOR EACH LEVEL OF ABNORMALITY

INCLUDE A TRIGGER TO ESCALATE CARE BASED ONLY ON CONCERN

DEVELOP PROCESSES THAT ENABLE CLINICIANS TO ESCALATE CARE UNTIL THEY ARE SATISFIED

The types, values and ranges of physiological observations and assessments that are used as trigger thresholds vary considerably.

practice point

Differences in trigger threshold values

A review of trigger threshold values in 19 different observation charts in use throughout Australia identified the following ranges for a **normal** respiratory rate.

Number of breaths per minute	
8–20	10–20
8–24	10–24
8–36	10–25 (two charts)
8–28	10–30
8–30	11–20
9–20 (three charts)	11–29
9–19	12–20
9–23	15–20

Generally, developing trigger thresholds is the responsibility of the facility's clinical governance system for recognising and responding to clinical deterioration.

Generally, developing trigger thresholds is the responsibility of the facility's clinical governance system for recognising and responding to clinical deterioration (for further information on clinical governance systems, see *Essential element 5: Organisational supports*).

Some statewide services, health boards and private hospital groups may set values for trigger thresholds. However, if a facility's evaluation demonstrates that thresholds lack the specificity and sensitivity to detect clinical deterioration, health professionals should consult with statewide services and private hospital groups to refine and improve trigger threshold parameters. Links to statewide and other programs are included in Appendix C.

Facilities that do not have trigger values set by statewide services or private hospital groups should develop local trigger thresholds, considering the responses required to treat the abnormality and the resources available at each site. Thresholds should be reviewed regularly to optimise specificity and sensitivity.

When developing trigger thresholds, health professionals need to consider the different patient groups their facility caters for. General medical, general surgical, paediatric and obstetric patients need different trigger thresholds, as physiological observations and assessments that signify clinical deterioration will vary between these groups. Specialist clinical areas may also need different trigger thresholds.

Patients may also show signs of clinical deterioration other than the observations and assessments commonly included in track and trigger systems. Signs of clinical deterioration may include increasing severity of pain, changes in colour or changes in perfusion. Trigger thresholds should therefore also include criteria for clinicians to escalate care based only on the fact that they are worried about the patient's condition.

General medical, general surgical, paediatric and obstetric patients need different trigger thresholds, as physiological observations and assessments that signify clinical deterioration will vary between these groups.

practice point

The 'worried' criterion for medical emergency team calls

A retrospective study of 3189 medical emergency team (MET) calls across six hospitals over six months compared 'objective' calls based on abnormalities in vital signs with 'subjective' calls where clinicians were worried about the patient.[6]

Twenty nine percent of MET calls were subjective; this was the most common reason for the call. Clinicians who made subjective calls were most commonly worried about patients' breathing or respiratory related problems (35%). Of the remaining subjective calls, 17% involved multiple reasons for being worried, including respiratory distress, deterioration in vital signs that was insufficient to call the MET, chest pain and being generally unwell.

Outcomes for patients with objective versus subjective MET calls differed significantly. The proportion of patients who suffered a cardiac arrest immediately after the MET call was significantly greater in the group that received the objective call (7.6%) compared with the subjective call (1.1%). This suggests that the clinical judgement demonstrated by the use of the 'worried' criterion is valuable, and supports early identification of patients at risk of adverse outcomes.

Trigger thresholds significantly affect workplace practices and resource use. Lower trigger thresholds may increase the number of response calls – which may mean that additional resources are needed to address them – but potentially identify deteriorating patients earlier. The key to balancing resource demand is to identify the right responder(s) (review by a senior nurse, doctor or MET) for the treatment that each trigger threshold is likely to require.

implementation tip

A facility's role and resources: considerations for developing trigger thresholds

When developing trigger thresholds, facilities need to consider their role (e.g. tertiary referral centre or small community hospital) and the resources they are capable of providing. Factors that could influence a decision to implement lower trigger thresholds include limited equipment, the time it takes for specialist trained clinicians to attend and the probability that patients who deteriorate will need escalation to another facility. These factors may be particularly relevant for rural and remote facilities.

Trigger thresholds and responses should be developed together, considering the different patient groups and the various responses from each clinical area. A mapping exercise may help develop trigger thresholds and responses, along with reviewing thresholds from existing systems. A tool to assist with this process is available on the Commission's web site.

Details of trigger thresholds should be included in observation charts (see *Essential element 1: Measurement and documentation of observations*) and the escalation protocol.

implementation tip

Trigger threshold checklist

- As a minimum, include thresholds for the core physiological observations in your track and trigger system
- Include a trigger for clinicians to escalate care if they are worried
- Trigger thresholds may differ between patient groups such as obstetrics, paediatrics, general medicine and general surgery
- Ensure observation and assessment trigger thresholds appropriately correspond to the level of physiological abnormality
- Consider lower trigger thresholds for rural or remote facilities.

Clinicians have different levels of knowledge, skill and clinical experience. These differences may lead to variations in clinical judgement, proposed treatment plans and capabilities for managing deteriorating patients. Facilities should develop mechanisms to enable clinicians to escalate care until they are satisfied that the patient is receiving the right care in the right time frame. These mechanisms should allow clinicians to:

- call for emergency assistance at any time, even in the presence of the attending medical officer or other senior clinician. This should be viewed as an opportunity for clinicians to collaborate on the plan of care and provide 'another set of eyes' to assess the patient's clinical condition and contribute to the treatment plan
- contact the patient's attending medical officer or senior hospital executive when clinical issues are unresolved.

Facilities should include these processes in the escalation policy and training programs.

implementation tip

Resolving issues relating to escalation of care

Primary responsibility for patient care rests with the attending medical officer or team. The attending medical officer must therefore be made aware of any unresolved problems relating to escalation responses. Develop a process where any clinician can contact the patient's attending medical officer or senior hospital executive when issues are unresolved. This reduces the number of hierarchical steps that may delay patients receiving the care they need. The process also helps resolve the problem or concern, promotes interdisciplinary teamwork and places the patient's safety as the key priority.

Clinicians have different levels of knowledge, skill and clinical experience. These differences may lead to variations in clinical judgement, proposed treatment plans and capabilities for managing deteriorating patients.

RESOURCE

DEVELOP RESPONSES FOR EACH LEVEL OF ABNORMALITY, CONSIDERING PATIENT NEEDS AND LOCAL RESOURCES

This exercise should consider patients' needs and the availability of resources at different times of the day and days of the week.

To develop a graded response system, facilities need to consider the appropriate response for each level of abnormality, and the locally available resources. Facilities may like to undertake a mapping exercise to consider the responses that should be associated with each level of abnormality. This exercise should consider patients' needs and the availability of resources at different times of the day and days of the week. A tool for this purpose is available on the Commission's web site.

Responses to each level of abnormality should consider:

- the clinical circumstances associated with each abnormal physiological parameter or combination of parameters, or other triggers
- the appropriate actions to take in response to these clinical circumstances
- the time required to undertake these actions
- the resources available and the resources required to undertake these actions.

Options for responses include:[2]

- increasing the frequency of observations
- appropriate interventions from nurses on the ward
- review by the attending medical officer or team
- calling the rapid response team
- transferring the patient to a higher level of care locally, or to another facility.

Similar clinical areas are likely to have similar trigger thresholds; however, graded responses within a facility may vary slightly due to differences in resources and work practices. This concept is demonstrated by the differences in the medium and emergency responses in the practice point overleaf.

practice point

Same trigger thresholds, different local practices

A paediatric aggregated scoring track and trigger system has been developed for use throughout a hospital. The trigger thresholds are the same, but the responses are slightly different depending on where the patient is located in the facility. This variation is due to differences in work practices and the availability of resources in each clinical area.

Level of abnormality	Aggregated scoring system	Response in ED	Response in paediatric ward
LOW	Score 0–1	• Discuss any concerns with nurse in charge • 4/24 observations	• Discuss any concerns with nurse in charge • 4/24 observations
MEDIUM	Score 2–3	• Notify ED RN in charge • Increase frequency of observations to every 15 minutes • Start advanced life support management as per ED policies and advanced practice roles • Call over intercom for ED MO assigned to patient to review within 30 minutes • Escalate to next level if patient's condition deteriorates further or if timely review does not occur	• Notify RN in charge • Increase frequency of observations to every 15 minutes • Start basic life support, measure other assessments as necessary • Contact patient's attending medical officer or team (after hours, call paediatric registrar) • Team to review patient within 30 minutes • Escalate to next level if patient's condition deteriorates further or if timely review does not occur
HIGH/EMERGENCY	Score ≥4	• Call 'emergency category 1' over intercom • ED MO allocated to resuscitation room to attend immediately • ED MO assigned to patient to attend immediately • ED RN in charge to attend immediately • Start emergency management as per ED policies	• Call the MET • RN in charge to contact patient's medical team to attend (or medical registrar if after hours) • Increase frequency of observations to every 5 minutes • Start basic life support measures

ED = emergency department; MET = medical emergency team; MO = medical officer; RN = registered nurse

Rural and isolated facilities may need to consider both on site and external resources for emergency responses – such as ambulance services or local general practitioners – to ensure appropriate numbers of suitably qualified clinicians are available.

In cases where patients need to be transferred to another site to receive further emergency assistance, facilities need to provide appropriate care to support them until such assistance is available.[2] This may influence the skills needed by the response team, or require strategies for accessing additional clinicians when such situations arise.

practice point

Ambulance service as a response in your escalation protocol

The Clinical Emergency Response System (CERS) Assist initiative was developed by NSW Ambulance and NSW Health to help respond to emergencies at rural and remote public healthcare facilities. These facilities can request clinical assistance to manage a rapidly deteriorating patient until further local resources or medical retrieval services become available.

NSW Ambulance responds to a facility's CERS Assist call by providing additional basic life support assistance (cardiopulmonary resuscitation, airway management and automated defibrillation).

implementation tip

Graded response checklist

- Include frequency of observations and other treatment requirements in your responses for each level of abnormality
- Ensure access at all times to a clinician who can provide advanced life support, either on site or in close proximity
- Ensure graded responses are developed for each clinical area, considering local work practices and available resources, and remember that responses may vary
- Consider the availability of external resources when developing responses in rural or remote facilities
- Support clinicians to trigger an emergency response at any time
- Support clinicians to contact the patient's attending medical officer or senior hospital executive when unresolved clinical issues exist.

EDUCATE

EDUCATE CLINICIANS ON THE ESCALATION PROTOCOL

PROVIDE A FLOW DIAGRAM OF THE ESCALATION PROTOCOL AT THE POINT OF CARE

Clinicians (including those who are casual, new and permanent) need education and training to understand the escalation protocol and their individual roles and responsibilities. This should include education on:

- the levels of abnormality
- trigger thresholds and the 'worried' criterion
- processes for escalating care until satisfied
- the care that each clinician is expected to provide
- professional behaviour in successfully operating escalation systems.

Escalation protocols can be complex, involving multiple steps and a variety of communication pathways.

comments from collegues

Clinicians with a response role need to understand their responsibilities

'I think what they [responders to escalation protocols] possibly need to know more about is escalation of care and the responsibility there. That's where our current system still falls down. We've got systems in place that say you need to ring this person. But you ring that person and they don't want to know or they are not contactable. So it's about these people being actively involved in that escalation process.'

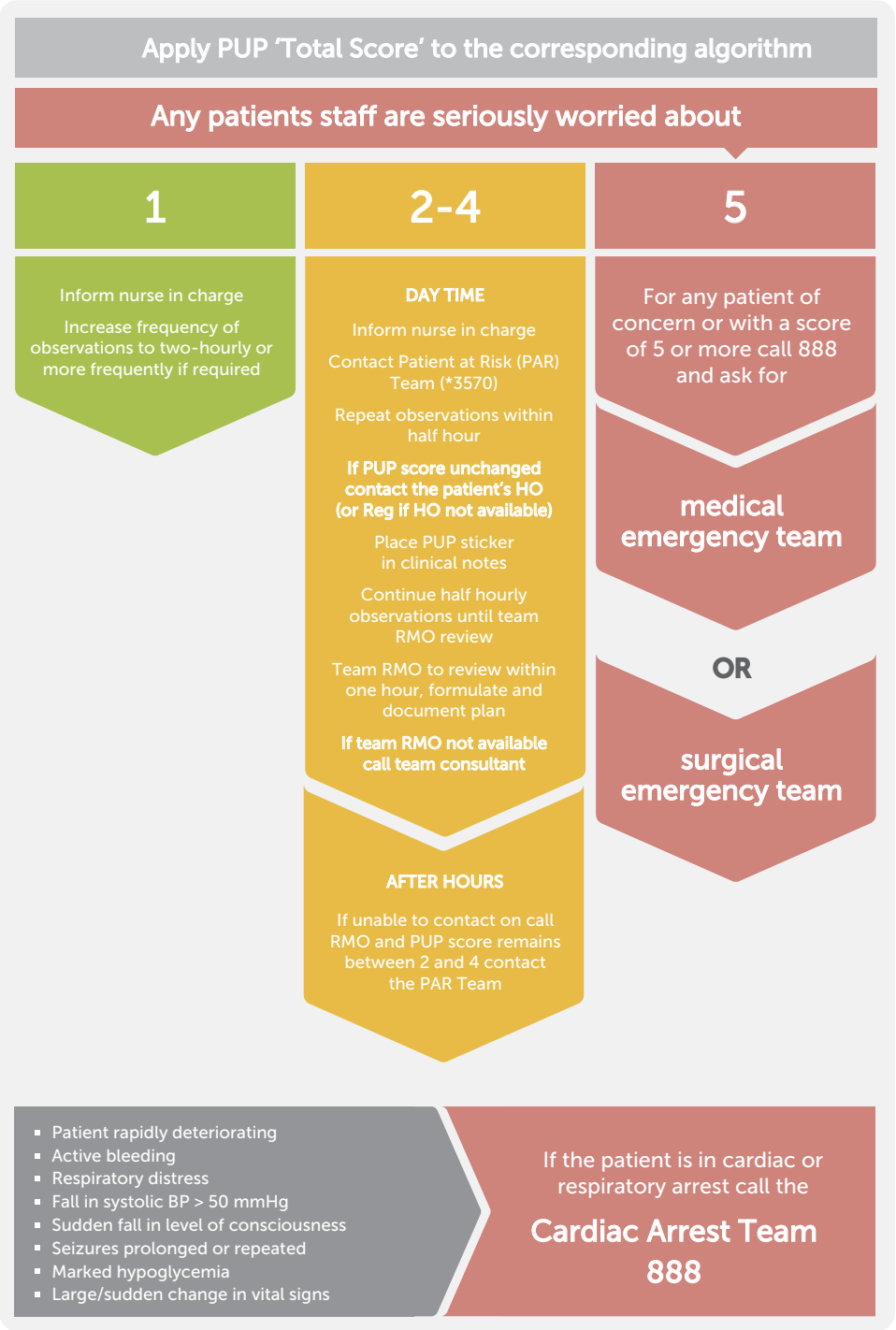
Resuscitation coordinator, focus groups, 2010

Escalation protocols can be complex, involving multiple steps and a variety of communication pathways. A flow diagram summarising this process provides clinicians with a quick reference tool that can be kept in clinical areas to support correct use of the escalation protocol.

practice point

Example of a flow chart for an escalation protocol

The following flow chart of an escalation protocol is for a hospital that uses a track and trigger system that requires calculation of an aggregate score called the Physiologically Unstable Patient (PUP) score.



Adapted from: A. Pirret, Counties Manukau District Health Board, personal communication, 2011

EVALUATE

EVALUATE THE EFFECTIVENESS OF TRIGGER THRESHOLDS AND RESPONSES

When reviewing the effectiveness of trigger thresholds, it is important to consider if the system is correctly identifying patients who are deteriorating. The practice point below provides some information about how the concepts of sensitivity and specificity apply to recognition and response systems.

practice point

Sensitivity and specificity

In relation to systems for the recognition and response to clinical deterioration, the term sensitivity refers to the ability to correctly identify a patient who is deteriorating. The more sensitive a test or set of diagnostic criteria, the lower the rate of 'false negatives' (patients who are deteriorating being missed). Specificity refers to the ability to correctly identify those who are not deteriorating. The more specific a test or set of diagnostic criteria, the higher the rate of 'true negatives' (patients who are not deteriorating).

$$\text{sensitivity} = \frac{\text{number of true positives}}{\text{number of true positives + number of false negatives}}$$

$$\text{specificity} = \frac{\text{number of true negatives}}{\text{number of true negatives + number of false positives}}$$

Sensitivity is important as it supports the identification of patients who are deteriorating. However, a trigger threshold with a high sensitivity can lead to false positives, where patients are identified who are not deteriorating. Specificity is also important, as it prevents response teams seeing patients who do not require assessment or treatment – with the danger of missing some patients who are deteriorating.[7]

A balance between sensitivity and specificity is required for trigger thresholds and early warning scores to work effectively. When the purpose of this process is to identify patients who are deteriorating, it is generally preferable to have trigger thresholds with a higher sensitivity, as this increases the chances of identifying patients who are actively deteriorating.[7]

Escalation responses should be evaluated to ensure that response times, equipment, clinicians with specific skills and other resources are appropriate for each level of abnormality.

Evaluation may also include collecting and reviewing information from complaints, unplanned admissions to intensive care, cardiac arrest calls and unexpected deaths. Health professionals should ask:

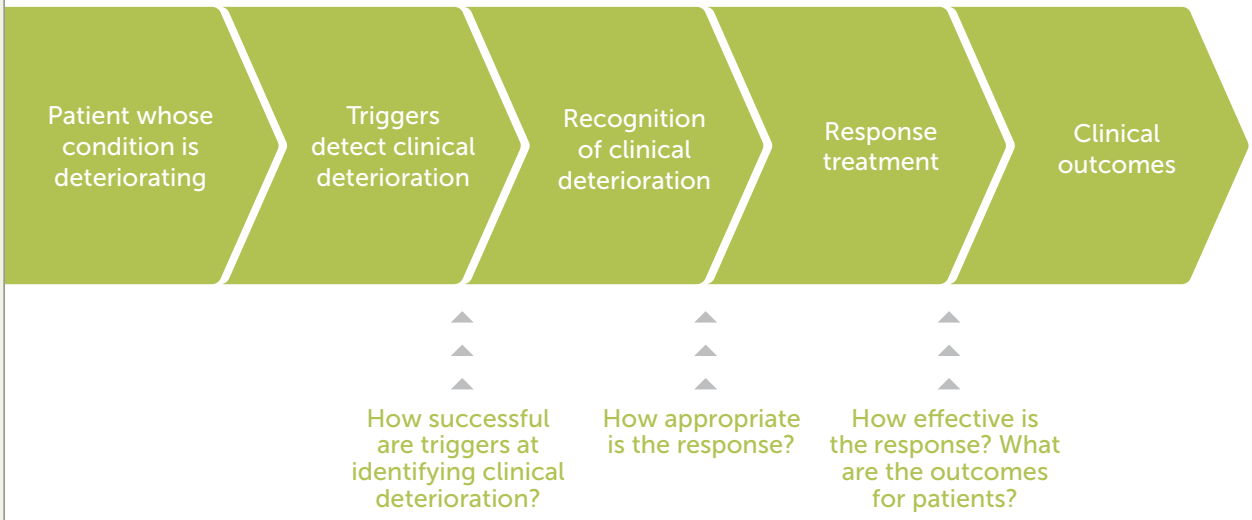
- how successfully the triggers identify the presence or absence of clinical deterioration
- if the responders can effectively manage the level of abnormality
- if the escalation protocol is used correctly
- if the escalation protocol operates as planned (i.e. are there any practical difficulties).

The practice point below illustrates the different evaluation points for recognition and response systems.

Escalation responses should be evaluated to ensure that response times, equipment, clinicians with specific skills and other resources are appropriate for each level of abnormality.

practice point

Evaluation points associated with trigger thresholds and responses



Adapted from National Institute for Health and Clinical Excellence[5]

Trigger thresholds and responses may need to be refined over time, based on evaluation and changes in resources. Additional information on evaluating systems for recognising and responding to clinical deterioration is provided in *Essential element 7: Evaluation*, audit and feedback. Specifications for quality measures regarding escalation of care are included in Appendix B.

why this task is important

This task is needed because:

- all patients have the right to receive or refuse life-sustaining treatments
- patients may receive unwanted care and treatments if processes for identifying and communicating advance care directives and treatment-limiting decisions are not available.

Patients may develop plans for their end-of-life care that include an advance care directive, which contains instructions about consent to, or refusal of, specified medical treatments in the future. The plans become effective in situations when a person is no longer able to communicate or make decisions.[8]

practice point

Implementing a formal advance care planning program improves end-of-life care

A randomised controlled trial of the introduction of a program from the United States called Respecting Choices involved 309 elderly patients at an Australian hospital. End-of-life care and patient and family satisfaction were significantly improved. For the 56 patients who died while the trial was underway, the following results were found.[9]

	Intervention group	Control group
Wishes known and followed	86%	30%
Wishes unknown	10%	63%
Wishes known but not followed	3%	7%
End-of-life decision-making		
None – died suddenly	21%	23%
Involved in decision-making	58%	37%
Not involved in decision-making	21%	30%
Family member satisfaction with quality of death		
Very satisfied	83%	48%
Satisfied	7%	30%
Not satisfied	10%	22%
Family member perception of patient's satisfaction with quality of death		
Very satisfied	86%	37%
Satisfied	4%	37%
Not satisfied	10%	26%

Although advance care directives are becoming more common, not all patients will have developed such a plan or discussed their end-of-life preferences with their family or carer before their condition deteriorates. Clinical deterioration may occur unexpectedly, and patients may lose their decision-making capacity before their wishes for the use of life-sustaining treatments are known. In these circumstances, clinicians may need to talk with the patient's family or the person responsible for the patient about end-of-life care and the appropriateness of future escalation responses should the patient deteriorate further.

Clinicians need to consider advance care preferences and any treatment-limiting decisions (such as 'not for resuscitation' orders, or limitations on escalation such as 'not for antibiotics' or 'not for intubation') that patients may have requested or require, when planning and providing escalation of care responses.

practice point

Recognising and responding to clinical deterioration and end-of-life care

There is increasing evidence that medical emergency teams (METs) are playing a major role in end-of-life care planning in Australia. Several studies have identified that approximately 10% of MET calls result in the documentation of a new treatment limitation.[3,10–11]

One study of 713 MET calls to 559 patients over a 12 month period found that a 'not for resuscitation' order would have been appropriate for 23% of patients.[12] In 4% of these cases, the MET documented this order as part of the call. Another study found that 35% of patients who died in hospital with a 'not for resuscitation' order in place had a MET call at some point in their admission.[13]

It has been suggested that METs are becoming involved in end-of-life care planning when active management has been unsuccessful, and when advance care planning has been delayed or sub-optimal.[13]

implementation tip

How to improve end-of-life care planning

A systematic review of interventions to improve palliative and end-of-life care revealed that multicomponent interventions increase advance care directives. Research suggests that 'engaging patient values, involving skilled facilitators, and involving patients, family and clinicians can increase the rates and effectiveness of communication about late life goals and advanced care planning.'[14]

Clinical deterioration may occur unexpectedly, and patients may lose their decision-making capacity before their wishes for the use of life sustaining treatments are known.

how to complete this task

DECIDE → DEVELOP → RESOURCE → EDUCATE → EVALUATE

task 3 – consider advance care directives and treatment-limiting decisions when escalating care		
DECIDE	▶▶▶	Decide how advance care directives will be identified
DEVELOP	▶▶▶	Develop processes to individualise trigger thresholds and responses for patients whose condition or preferences limit treatment
RESOURCE	▶▶▶	Provide tools for documenting advance care directives, treatment-limiting decisions and individualised escalation protocols
EDUCATE	▶▶▶	Educate health professionals on advance care directives, treatment-limiting decisions and individualised escalation protocols
EVALUATE	▶▶▶	Evaluate escalation policies that consider advance care directives and treatment-limiting decisions

DECIDE

DECIDE HOW ADVANCE CARE DIRECTIVES WILL BE IDENTIFIED

Escalation policies should include processes to identify patients who have advance care directives when they present to the facility. This is particularly important for emergency departments, where treatments for clinical deterioration often begin, and where there is likely to be access to family to obtain information about a patient's treatment preferences.

Establishing processes for identifying advance care directives may require changes to admission procedures and education for the clinical and non-clinical workforce on individual roles and responsibilities. Clinical governance systems for recognition and response systems play a key role in developing these processes (for further information on clinical governance systems, see *Essential element 5: Organisational supports*).

Facilities may inform patients and families about the collection of information on advance care directives. Once a patient's advance care directive has been identified, an individualised escalation protocol can be developed.

Where advance care directives are developed during a patient's admission, facilities need to ensure that this process involves the attending medical officer or team, so that changes to treatments (including modifications to trigger thresholds) can be made and communicated to all clinicians caring for the patient.

implementation tip

Supporting early identification of advance care directives

Strategies for ensuring advance care directives are identified on admission include:

- displaying posters and brochures in areas where patients enter the acute care system that explain the importance of telling health professionals about advance care directives
- incorporating reminders into admission paperwork that prompt health professionals to ask if the patient has an advance care directive
- incorporating reminders into the documentation process for a patient's individual monitoring plan
- educating health professionals and familiarising them with advance care directives to promote discussions with patients and families.

DEVELOP

DEVELOP PROCESSES TO INDIVIDUALISE TRIGGER THRESHOLDS AND RESPONSES FOR PATIENTS WHOSE CONDITION OR PREFERENCES LIMIT TREATMENT

Escalation policies should allow individualised escalation protocols for patients whose condition or preferences will limit treatment.

Individualised protocols may be developed before clinical deterioration occurs (e.g. in response to an advance care directive on admission), when a life-limiting diagnosis is made, or if unexpected deterioration makes treatment-limiting decisions necessary.

Individualised protocols should be made by members of the healthcare team, in consultation with the attending medical officer, the patient (where possible) or the family. Protocols should provide information on the:

- modifications to physiological observation thresholds triggering escalation of care
- clinician or healthcare team to contact when trigger thresholds are reached
- appropriate treatment options, considering whether the deterioration is reversible or non-reversible.

The case review provides an example of an individualised escalation protocol in operation.

case review

A patient known to the palliative care team

Joanne O'Riley is 54-years-old and was diagnosed with lung cancer two months ago. She is known to the palliative care team.

Joanne was admitted to hospital unexpectedly for drainage of a pleural effusion. On presentation to hospital, Joanne and her specialist discussed end-of-life care. Joanne decided that in the event of cardiac arrest, she did not wish to receive cardiopulmonary resuscitation.

Her specialist had documented an individualised escalation protocol for Joanne, based on her wishes and the need to modify triggers for respiratory rate because of her increased rate at rest. The trigger value for respiratory rate was set higher than the usual trigger value used in the facility. All other triggers for escalating care remained the same.

On day two of her admission, Joanne's heart rate had increased to 140/min, triggering an emergency response. Joanne was found to have acute pulmonary oedema, a potentially reversible condition related to her cancer. She was treated with intravenous frusemide and her condition improved over the next few days. Joanne was discharged home three days later with her family.

RESOURCE

PROVIDE TOOLS FOR DOCUMENTING ADVANCE CARE DIRECTIVES, TREATMENT-LIMITING DECISIONS AND INDIVIDUALISED ESCALATION PROTOCOLS

Advance care directives provide patients with a way to communicate their end-of-life wishes to families, carers and healthcare teams. Facilities should encourage the development and documentation of advance care directives, as this ensures patients' preferences are identified and reduces the likelihood of communication breakdown and inappropriate healthcare treatment.

Tools and processes for documenting advance care directives should be developed according to the facility's usual clinical governance processes (for further information, see *Essential element 5: Organisational supports*). Many states have legislation and policy governing the development and documentation of advance care directives, which should be referred to as part of the development process. Links to resources about advance care planning are included in Appendix C.

Facilities should encourage the development and documentation of advance care directives, as this ensures patients' preferences are identified and reduces the likelihood of communication breakdown and inappropriate healthcare treatment.

implementation tip

Respecting Patient Choices

Respecting Patient Choices® is an Australian program that provides information, training and resources for health professionals to help them discuss, record and document advance care planning with patients. The program is being implemented in many Australian hospitals with the support of the Victorian Department of Department of Health and the Commonwealth Department of Health and Ageing.

More information and resources are available on the program's web site: www.respectingpatientchoices.org.au

Facilities also need tools for documenting treatment-limiting decisions and individualised escalation protocols to ensure that patients receive appropriate treatments and responses if clinical deterioration occurs. Protocols should be documented in healthcare records using a tool specially designed to capture this information. This information should be updated with changes in a patient's condition or preferences.

Tools should include any state legislation or policy requirements for documentation of treatment-limiting plans, which may include:[8]

- proof that treatment options were discussed
- the people involved in the discussion
- the patient's wishes (if known)
- the specific goals of therapy
- any agreed treatment limitations
- any modified triggers needed to escalate care
- appropriate treatments to be provided, considering possible causes of deterioration (reversible and non-reversible)
- the clinicians or healthcare teams to contact when thresholds are reached
- the frequency of physiological observations and other assessments
- a review date for treatment-limiting plans (if appropriate).

practice point

Forms for documenting resuscitation status could be improved

The content of standardised order forms for recording 'not for resuscitation' (NFR) status varies widely. A study of 62 forms used in public hospitals across Australia found the following information included on NFR forms.[15]

Patient's diagnosis	39%
Reason(s) for issuing the NFR order	56%
Date of next review	45%
Name (handwritten) and signature of patient/proxy	26%
Name and signature of medical practitioner issuing order	92%
Name and signature of witness (besides issuing medical practitioner)	29%
Documentation of discussion with the patient	81%
Documentation of reasons for not discussing decision with patient	10%
Documentation of discussion with the family	73%
Documentation of nursing staff informed of decision	63%
Documentation of consultant informed of decision	48%
Documentation of level of intended intervention in partial NFR orders	53%

EDUCATE

EDUCATE HEALTH PROFESSIONALS ON ADVANCE CARE DIRECTIVES, TREATMENT-LIMITING DECISIONS AND INDIVIDUALISED ESCALATION PROTOCOLS

Health professionals need education on the legal requirements and processes associated with advance care planning and treatment limitations. As a minimum, this should include information on:

- legal and professional roles and responsibilities
- ethics and advocacy roles
- documentation and communication processes.

Senior clinicians who are experienced in treatment-limiting and advance care planning discussions with patients and families should mentor junior clinicians and provide skill-based communication training.

Education programs should include processes for developing individualised escalation protocols for patients with treatment limitations.

EVALUATE

EVALUATE ESCALATION POLICIES THAT CONSIDER ADVANCE CARE DIRECTIVES AND TREATMENT-LIMITING DECISIONS

Facilities need to ensure that escalation protocols communicate the treatment needs of the patient, and provide enough detail for clinicians to detect and respond appropriately to signs of clinical deterioration.

It is important to evaluate the satisfaction of patients, family and carers with escalation policies that consider advance care directives and treatment-limiting decisions. Methods to do this could include patient satisfaction surveys, semi-structured interviews, focus groups and monitoring of complaints.

Facilities may also like to evaluate staff perceptions of escalation policies that consider advance care directives and treatment-limiting decisions.

why this task is important

This task is needed because:

- patients experience delays in treatment, despite families identifying and reporting concerns about clinical deterioration to the healthcare team
- patients, families and carers are ideally placed and are skilled at recognising clinical deterioration.

In Australia and internationally, investigations into adverse events have shown that appropriate treatment has been delayed, even when families have identified and reported concerns about clinical deterioration to the healthcare team.[16–17] Patients and families may identify signs of clinical deterioration – including in other patients – but not have immediate access to the healthcare team, which delays treatment.

case review

Unplanned intensive care unit admission

Anita Brown is a 35-year-old woman who was admitted to a tertiary hospital ward with neutropenic sepsis. Her mother was very concerned and remained with her throughout the day and night. On multiple occasions, she expressed concerns to staff about Anita's increasing respiratory rate and visible deterioration. Despite frequent reviews by nursing staff and junior and senior specialist medical staff, Anita's condition continued to deteriorate. Her physiological observations met the criteria to activate the medical emergency team for more than 24 hours, but the team was not called.

It was not until 36 hours after admission that ward nursing staff referred Anita to an intensive care liaison nurse. The intensive care liaison nurse immediately made a medical emergency call and Anita was transferred to intensive care where she was rapidly intubated and ventilated. If the family's concerns had been acted on and the patient's care escalated earlier, a prolonged intensive care unit admission and significant distress for the patient and family may have been prevented.

Families and carers are ideally placed to identify signs of clinical deterioration because:

- the patient is well known to them, allowing subtle changes or signs of clinical deterioration to be identified by the family before being identified by the healthcare team
- they spend time with the patient, providing additional surveillance to that provided by the healthcare team.

The findings of the coroner's investigation below confirm the vital role that families play in recognising clinical deterioration.

learning from coronial inquests

Recognising the role families can play in identifying deterioration

Mr Giovanni Bertoncini was admitted to hospital for severe abdominal pain in 2002. He was 72-years-old. Family members became concerned that his condition was deteriorating, and that he was suffering from more pain than appeared to be recognised by the healthcare team. After Mr Bertoncini's death in hospital, the coroner reported:[17]

'In the context of this case in determining whether the condition of the deceased was deteriorating, in addition to the recording of regular observations, it would have been helpful if more regard had been paid by staff to the family's opinion that the condition of the deceased was deteriorating. The deceased's wife had been with him constantly (except at night) and was well placed to notice changes in his condition.'[17]

Escalation policies and protocols should enable patients, families and carers to trigger escalation of care. This concept is relatively new in Australia. However, many hospitals in the United States have implemented processes to ensure that patients and families can escalate care when they recognise clinical deterioration.[18–19] Links to resources and information developed by hospitals in the United States, and new programs in Australia, are available in Appendix C.

Escalation of care by patients, families and carers acts in a similar way to escalation protocols triggered by health professionals. When patients and families identify deterioration, have concerns, or if there is confusion about what is happening with care, they are able to trigger a call that brings members of the healthcare team to the patient's bedside. The healthcare team can then assess the situation, provide emergency assistance and resolve any concerns.

Providing a process for patients, families or carers to escalate care provides an additional layer of safety, and recognises the role of patients, families and carers as part of the wider healthcare team.

practice point

Impact of patient and family escalation systems on rapid response calls

In hospitals where patient, family and carer escalation of care has been established, the number of calls by patients, families and carers has not resulted in an unmanageable increase in calls to the rapid response system. Examples of the number of calls reported include 25 in two years,[18] 42 in 23 months,[20] 12 in six months[21] and 69 in six months.[22] One study found that family concern was noted as the reason for a MET call in 5% of calls, and that families directly activated only two calls in a 12 month period.[23]

practice point

Improvements can result from tragedy

In the United States, a strong driver for the establishment of processes to allow patients, families and carers to escalate care has been the deaths of children in hospital. One of the most well known cases is that of Josie King, an 18-month-old girl who died in a paediatric intensive care unit due to incorrect administration of narcotics. Concerns were raised by Sorrel King, Josie's mother, and not acted on by clinicians. Following Josie's death, the King family worked with hospitals to develop processes for patient, family and carer escalation of care.

Another case is that of Lewis Blackman, a 15-year-old boy admitted for elective surgery. He died following clinical deterioration, despite repeated requests by his mother to contact a senior physician. Following Lewis' death, the Lewis Blackman Hospital Patient Safety Act 2005 was enacted in South Carolina. The Act requires hospitals to provide mechanisms to enable patients to promptly and independently access assistance for the resolution of their personal medical care.

Further information can be found at:

www.josieking.org

www.scstatehouse.gov/sess116_2005_2006/bills/3832.htm

www.lewisblackman.net

how to complete this task

DECIDE → DEVELOP → RESOURCE → EDUCATE → EVALUATE

task 4 – provide a process to enable patients, families and carers to escalate care		
DECIDE	▶ ▶ ▶	Decide on triggers for patient, family and carer escalation of care Decide how the response will be activated
DEVELOP	▶ ▶ ▶	Develop processes for informing patients, families and carers of how to escalate care
RESOURCE	▶ ▶ ▶	Provide a response when patients, families and carers escalate care
EDUCATE	▶ ▶ ▶	Educate health professionals about escalation processes for patients, families and carers
EVALUATE	▶ ▶ ▶	Evaluate escalation processes for patients, families and carers

DECIDE

DECIDE ON TRIGGERS FOR PATIENT, FAMILY AND CARER ESCALATION OF CARE

DECIDE HOW THE RESPONSE WILL BE ACTIVATED

Facilities need to decide on the triggers for patients, families and carers to escalate care. As a minimum, this should allow escalation to occur:

- if there is a belief that a patient is not receiving the medical attention they feel is necessary
- if there is concern with what is happening
- when there is confusion over what needs to be done in a critical situation.[16]

The system may be activated by a number of different mechanisms. However, it is important that patients, families and carers do not need to request information or assistance to obtain help. Methods for activating the system may include calling an emergency number from the patient's bedside telephone or any internal hospital telephone, or by using the emergency call button or similar mechanism located in the clinical area. In some cases, a designated telephone that is only used for patient and family escalation calls has been established.[24]

In addition, facilities may like to develop other processes that enable patients, families or carers to talk to the attending medical officer or team responsible for the patient.

Links to resources that can assist with the planning of patient and family escalation processes are available in Appendix C.

implementation tip

Developing escalation processes for patients, families and carers

- Remember to involve patients, families and carers when developing triggers and processes for activating the system.
- Remember to provide information on the location (e.g. ward, room and bed number) close to the activation point, so that patients, families and carers can identify and report their location within the hospital when calling for assistance.

practice point

Examples of names for patient and family escalation processes

Giving the patient and family escalation system a specific name may help patients and families understand the purpose of the system. In Australia, the Between the Flags program in New South Wales is introducing a patient and family escalation system called **REACH**.

RECOGNISE - have you noticed a worrying change in your own or your loved one's condition?

ENGAGE - inform the nurse that is looking after you or your loved one.

ACT - if your concern is not responded to, or you or your loved one is getting worse, act.
Ask to speak to the nurse in charge and request a clinical review.

CALL - if you are still concerned, call the emergency response team.

HELP - help is on its way.

Other examples from hospitals in the United States include:[24]

- Family Activated Safety Team (FAST)
- Family Initiated Rapid Response and Safety Team (FIRRST)
- Family Initiated Rapid Support Team (FIRST)
- Family Initiated Rapid Screening Team (Call FIRST)
- Patient/Family Initiated Rapid Response Team
- Condition HELP / Condition H
- Code Care
- Partners in Care
- Together Caring for Your Family as our Own
- We're Here to Help.

DEVELOP

DEVELOP PROCESSES FOR INFORMING PATIENTS, FAMILIES AND CARERS OF HOW TO ESCALATE CARE

For the system to work effectively, patients, families and carers need information on how to use the escalation process. This information should be provided on admission to the facility and reinforced throughout the patient's stay.

For the system to work effectively, patients, families and carers need information on how to use the escalation process. This information should be provided on admission to the facility and reinforced throughout the patient's stay.

Strategies for informing patients, families and carers of escalation processes include:

- educating all patients and family members about the escalation process on admission, and providing a brochure that outlines how care is escalated
- reinforcing the message during daily healthcare team rounds
- displaying signs or posters that describe how to escalate care in all patients' rooms
- displaying signs or posters in public areas to remind patients and visitors about the process
- displaying stickers that show the number to call on telephones (if this method is used to call the responders)
- broadcasting information about the system on patient television and audio services.

Links to examples of resources that have been used to provide information to patients and families are included in Appendix C.

RESOURCE

PROVIDE A RESPONSE WHEN PATIENTS, FAMILIES AND CARERS ESCALATE CARE

Clinicians who respond to a call from a patient, family or carer should be able to assess the patient, give initial therapeutic interventions and escalate care to a clinician with advanced life support skills if required.

Responses should be developed locally, consider the availability of resources, and details included in the facility's escalation policy. Responses may include the attendance of:

- the patient's attending medical officer or team
- rapid response providers
- a group of alternative clinicians
- a single clinician.

Patient, family and carer escalation is triggered because of concerns regarding a patient's condition, current treatment or care. Therefore, an important part of the escalation response is to facilitate communication between the healthcare team and the patient, family or carer. This may include organising for the patient or family to meet with the attending medical officer or team to discuss care and treatment options.

Patient, family and carer escalation is triggered because of concerns regarding a patient's condition, current treatment or care. Therefore, an important part of the escalation response is to facilitate communication between the healthcare team and the patient, family or carer.

EDUCATE

EDUCATE HEALTH PROFESSIONALS ABOUT ESCALATION PROCESSES FOR PATIENTS, FAMILIES AND CARERS

The concept of patients and families escalating care is relatively new to Australia. To enable these systems to develop, health professionals need education about the purpose of such initiatives, as well as information on their roles and responsibilities when a patient, family or carer triggers escalation of care.

Some facilities have developed scripted information for training. These scripts describe how to introduce and explain the escalation system to a patient, family member or carer.

Links to more information about tools that can be used to educate health professionals are available in Appendix C.

To enable these systems to develop, health professionals need education about the purpose of such initiatives, as well as information on their roles and responsibilities when a patient, family or carer triggers escalation of care.

EVALUATE

EVALUATE ESCALATION PROCESSES FOR PATIENTS, FAMILIES AND CARERS

Evaluating patient, family and carer escalation processes will identify any barriers to using the system, and ensure that strategies are developed and implemented to promote successful use of the system.

If health professionals believe the system is not working efficiently, their response to patient, family or carer escalation may be inadequate. The caller may also feel uncomfortable with the response they receive.

The success of these systems relies on the patient, family or carers being comfortable with the process of escalating care, and feeling that their concerns are adequately addressed by the responding clinician.

Key points to consider when evaluating systems for patient, family and carer escalation of care include:

- the level of awareness that patients, families and carers demonstrate on how to use the escalation process
- satisfaction of the patient, family and carer with the mechanism for escalation and responses provided
- satisfaction of health professionals in relation to the escalation system (process, roles and responsibilities)
- the number of times patient, family or carer escalation of care events occur
- reasons for triggering escalation of care
- patient outcomes following an escalation of care response.

Methods for obtaining this information may include:

- surveys or semi-structured interviews of patients, families and carers to determine the level of awareness of the escalation system
- focus groups
- audits of medical records.

Specifications for some quality measures concerning patient, family and carer escalation of care are included in Appendix B.

If health professionals believe the system is not working efficiently, their response to patient, family or carer escalation may be inadequate. The caller may also feel uncomfortable with the response they receive.

summary of tasks and actions for essential element 2

Task	What is required?	Who is responsible?	Consensus statement recommendations	National safety and quality health service standards actions
task 1 **Develop an escalation policy tailored to the role and characteristics of the facility**	**DECIDE** Identify clinical services and resources available (internal and external) Decide on the type of service each clinical area or facility can provide	Health service managers Health professionals with responsibility for policy or quality improvement Clinicians	2.1 A formal documented escalation protocol is required that applies to the care of all patients at all times 2.3 The escalation protocol should be tailored to the characteristics of the acute health care facility, including consideration of issues such as: • size and role (such as whether a tertiary referral centre or small community hospital) • location • available resources (such as staffing mix and skills, equipment, remote telemedicine systems, external such as ambulances)	1.8.3 Systems exist to escalate the level of care when there is an unexpected deterioration in health status 9.1.2 Policies, procedures and/or protocols for the organisation are implemented in areas such as: • escalation of care 9.4.1 Mechanisms are in place to escalate care and call for emergency assistance
	DEVELOP Develop information to be included in the escalation policy	Health professionals with responsibility for policy or quality improvement Health service managers Clinicians	2.1 A formal documented escalation protocol is required that applies to the care of all patients at all times	9.5.1 Criteria for triggering a call for emergency assistance are included in the escalation policies, procedures and/or protocols
	RESOURCE Provide resources for transferring patients to to a higher level of care locally, or to another facility	Health service executive and owners Health service managers	2.3 The escalation protocol should be tailored to the characteristics of the acute health care facility, including consideration of issues such as: • potential need for transfer to another facility 3.7 In cases where patients need to be transferred to another site to receive emergency assistance, appropriate care needs to be provided to support them until such assistance is available	N/A

summary of tasks and actions for essential element 2

Task	What is required?	Who is responsible?	Consensus statement recommendations	National safety and quality health service standards actions
task 1 **Develop an escalation policy tailored to the role and characteristics of the facility**	**EDUCATE** Educate clinicians on the escalation policy	Health service managers Educators Clinicians	2.11 The escalation protocol should be promulgated widely and included in education programs 6.1 All clinical and non-clinical staff should receive education about the local escalation protocol relevant to their position. They should know how to call for emergency assistance if they have any concerns about a patient, and know that they should call under these circumstances. This information should be provided at the commencement of employment and as part of regular refresher training	1.4.1 Orientation and ongoing training programs provide the workforce with the skill and information needed to fulfil their safety and quality roles and responsibilities 1.4.2 Annual mandatory training programs to meet the requirements of these standards 1.4.3 Locum and agency workforce have the necessary information, training and orientation to the workplace to fulfil their safety and quality roles and responsibilities 1.4.4 Competency-based training is provided to the clinical workforce to improve safety and quality
	EVALUATE Review deaths, adverse events and external transfers	Health professionals with responsibility for policy or quality improvement Clinicians Health service managers	7.1 Data should be collected and reviewed locally and over time regarding the implementation and effectiveness of recognition and response systems 7.3 Systems should be evaluated to determine whether they are improving the recognition of and response to clinical deterioration 7.7 Information about the effectiveness of the recognition and response systems may also come from other clinical information such as incident reports, root cause analyses, cardiac arrest calls and death reviews. A core question for every death review should be whether the escalation criteria for the rapid response system was met, and whether care was escalated appropriately	9.2.2 Deaths or cardiac arrests for a patient without an agreed treatment-limiting order (such as not for resuscitation or do not resuscitate) are reviewed to identify the use of the recognition and response systems, and any failures in these systems 9.4.2 Use of escalation processes, including failure to act on triggers for seeking emergency assistance, are regularly audited 9.4.3 Action is taken to maximise the appropriate use of escalation processes 9.5.2 The circumstances and outcome of calls for emergency assistance are regularly reviewed

summary of tasks and actions for essential element 2

Task	What is required?	Who is responsible?	Consensus statement recommendations	National safety and quality health service standards actions
task 2 **Develop an escalation protocol that provides a graded response to abnormal physiological measurements and include in the escalation policy**	**DECIDE** Decide on the number of levels of abnormality to be used with your chosen track and trigger system	Health professionals with responsibility for policy or quality improvement Clinicians Health service managers	2.4 The escalation protocol should allow for a graded response commensurate with the level of abnormal physiological measurements, changes in physiological measurements or other identified deterioration	9.3.1 When using a general observation chart, ensure that it: • includes the capacity to record information about respiratory rate, oxygen saturation, heart rate, blood pressure, temperature and level of consciousness graphically over time • includes thresholds for each physiological parameter or combination of parameters that indicate abnormality 9.5.1 Criteria for triggering a call for emergency assistance are included in the escalation policies, procedures and/or protocols
	DEVELOP Develop trigger thresholds for each level of abnormality Include a trigger to escalate care based only on concern Develop processes enabling clinicians to escalate care until they are satisfied	Health professionals with responsibility for policy or quality improvement Clinicians Health service managers	2.2 The escalation protocol should authorise and support the clinician at the bedside to escalate care until the clinician is satisfied that an effective response has been made 2.5 The escalation protocol should specify: • the levels of physiological abnormality or abnormal observations at which patient care is escalated 2.8 The escalation protocol should allow for the capacity to escalate care based only on the concern of the clinician at the bedside, in the absence of other documented abnormal physiological measurements ('staff member worried' criterion)	9.3.1 When using a general observation chart, ensure that it: • specifies the physiological abnormalities and other factors that trigger the escalation of care 9.4.1 Mechanisms are in place to escalate care and call for emergency assistance 9.5.1 Criteria for triggering a call for emergency assistance are included in the escalation policies, procedures and/or protocols

summary of tasks and actions for essential element 2

Task	What is required?	Who is responsible?	Consensus statement recommendations	National safety and quality health service standards actions
task 2 **Develop an escalation protocol that provides a graded response to abnormal physiological measurements and include in the escalation policy**	**RESOURCE** Develop responses for each level of abnormality, considering patient needs and local resources	Health professionals with responsibility for policy or quality improvement Clinicians Health service managers	2.5 The escalation protocol should specify: • the levels of physiological abnormality or abnormal observations at which patient care is escalated • the response that is required for a particular level of physiological or observed abnormality • how the care of the patient is escalated • the personnel that care of the patient is escalated to, noting the responsibility of the attending medical officer or team • who else is to be contacted when care of the patient is escalated • the timeframe in which a requested response should be provided • alternative or back up options for obtaining a response 2.7 The escalation protocol may specify different actions depending on the time of day or day of the week, or for other circumstances	9.4.1 Mechanisms are in place to escalate care and call for emergency assistance 9.4.3 Action is taken to maximise the appropriate use of escalation processes
	EDUCATE Educate clinicians on the escalation protocol Provide a flow diagram of the escalation protocol at the point of care	Health service managers Educators Clinicians Health professionals with responsibility for policy or quality improvement	2.11 The escalation protocol should be promulgated widely and included in education programs 6.1 All clinical and non-clinical staff should receive education about the local escalation protocol relevant to their position. They should know how to call for emergency assistance if they have any concerns about a patient, and know that they should call under these circumstances	9.2.2 Deaths or cardiac arrests for a patient without an agreed treatment-limiting order (such as not for resuscitation or do not resuscitate) are reviewed to identify the use of the recognition and response systems, and any failures in these systems 9.4.2 Use of escalation processes, including failure to act on triggers for seeking emergency assistance, are regularly audited

summary of tasks and actions for essential element 2

Task	What is required?	Who is responsible?	Consensus statement recommendations	National safety and quality health service standards actions
task 2 **Develop an escalation protocol that provides a graded response to abnormal physiological measurements and include in the escalation policy**			This information should be provided at the commencement of employment and as part of regular refresher training	9.4.3 Action is taken to maximise the appropriate use of escalation processes 9.5.2 The circumstances and outcome of calls for emergency assistance are regularly reviewed
	EVALUATE Evaluate the effectiveness of trigger thresholds and responses	Health service managers Health professionals with responsibility for policy or quality improvement	7.1 Data should be collected and reviewed locally and over time regarding the implementation and effectiveness of recognition and response systems 7.5 Regular audits of triggers and outcomes should be conducted for patients who are the subject of calls for emergency assistance. Where these data are available, this could include longer term outcomes for patients (such as 30 and 60 day mortality)	9.4.2 Use of escalation processes, including failure to act on triggers for seeking emergency assistance, are regularly audited 9.2.1 Feedback is actively sought from the clinical workforce on the responsiveness of the recognition and response systems 9.5.2 The circumstances and outcome of calls for emergency assistance are regularly reviewed
task 3 **Consider advance care directives and treatment-limiting decisions when escalating care**	**DECIDE** Decide how advance care directives will be identified	Health professionals with responsibility for policy or quality improvement Clinicians Health service managers	2.10 The escalation protocol should include consideration of the needs and wishes of patients with an advance care directive or where other treatment-limiting decisions have been made	9.8.1 A system is in place for preparing and/or receiving advance care plans in partnership with patients, families and carers
	DEVELOP Develop processes to individualise trigger thresholds and responses for patients whose condition or preferences limit treatment	Health professionals with responsibility for policy or quality improvement Clinicians Health service managers	2.6 The way in which the escalation protocol is applied should take into account the clinical circumstances of the patient, including both the absolute change in physiological measurements and abnormal observations, as well as the rate of change over time for an individual patient	1.18 Implementing processes to enable partnership with patients in decisions about their care, including informed consent to treatment 9.8.2 Advance care plans and other treatment-limiting orders are documented in the patient clinical record

summary of tasks and actions for essential element 2

Task	What is required?	Who is responsible?	Consensus statement recommendations	National safety and quality health service standards actions
task 3 **Consider advance care directives and treatment-limiting decisions when escalating care**	**RESOURCE** Provide tools for documenting advance care directives, treatment-limiting decisions and individualised escalation protocols	Health service managers Health professionals with responsibility for policy or quality improvement	4.4 There should be adequate communication and discussion about the wishes of the patient regarding advance care planning, resuscitation and other active treatment	1.7.1 Agreed and documented clinical guidelines and/or pathways are available to the clinical workforce 9.8.2 Advance care plans and other treatment-limiting orders are documented in the patient clinical record
	EDUCATE Educate health professionals on advance care directives, treatment-limiting decisions and individualised escalation protocols	Educators Clinicians	6.2 All doctors and nurses should be able to: • understand the importance of, and discuss, end-of-life care planning with the patient, family and/or carer	1.4.1 Orientation and ongoing training programs provide the workforce with the skill and information needed to fulfil their safety and quality roles and responsibilities 1.4.2 Annual mandatory training programs to meet the requirements of these standards 1.4.3 Locum and agency health professionals have the necessary information, training and orientation to the workplace to fulfil their safety and quality roles and responsibilities 1.4.4 Competency-based training is provided to the clinical workforce to improve safety and quality
	EVALUATE Evaluate escalation policies that consider advance care directives and treatment-limiting decisions	Health professionals with responsibility for policy or quality improvement Health service managers	7.1 Data should be collected and reviewed locally and over time regarding the implementation and effectiveness of recognition and response systems	9.5.2 The circumstances and outcome of calls for emergency assistance are regularly reviewed

summary of tasks and actions for essential element 2

Task	What is required?	Who is responsible?	Consensus statement recommendations	National safety and quality health service standards actions
task 4 **Provide a process to enable patients, families and carers to escalate care**	**DECIDE** Decide on triggers for patient, family and carer escalation of care Decide how the response will be activated	Patients, families and carers Health professionals with responsibility for policy or quality improvement Clinicians Health service managers	2.9 The escalation protocol should allow for the concerns of the patient, family or carer to trigger an escalation of care	9.9.1 Mechanisms are in place for a patient, family member or carer to initiate an escalation of care response
	DEVELOP Develop processes for informing patients, families and carers how to escalate care	Patients, families and carers Health professionals with responsibility for policy or quality improvement Clinicians Health service managers Educators	4.3 Information about deterioration should be communicated to the patient, family or carer in a timely and ongoing way 4.4 There should be adequate communication and discussion about the wishes of the patient regarding advance care planning, resuscitation and other active treatment	1.18.3 Mechanisms are in place to align the information provided to patients with their capacity to understand 9.9.2 Information about the system for family escalation of care is provided to patients, families and carers
	RESOURCE Provide a response when patients, families and carers escalate care	Health service boards, executives and owners Health service managers Clinicians		1.18.1 Patients and carers are partners in the planning for their treatment 9.7.1 Information is provided to patients, families and carers in a format that is understood and meaningful. The information should include: • the importance of communicating concerns and signs/symptoms of deterioration, which are relevant to the patient's condition, to the clinical workforce • local systems for responding to clinical deterioration, including how they can raise concerns about potential deterioration

summary of tasks and actions for essential element 2

Task	What is required?	Who is responsible?	Consensus statement recommendations	National safety and quality health service standards actions
	EDUCATE Educate health professionals about escalation processes for patients, families and carers	Patients, families and carers Health service managers Educators Clinicians	6.2 All doctors and nurses should be able to: • communicate information about clinical deterioration in a structured and effective way to the attending medical officer or team, to clinicians providing emergency assistance, and to patients, families and carers	1.4.1 Orientation and ongoing training programs provide the workforce with the skill and information needed to fulfil their safety and quality roles and responsibilities 1.4.2 Annual mandatory training programs to meet the requirements of these standards 1.4.3 Locum and agency workforce have the necessary information, training and orientation to the workplace to fulfil their safety and quality roles and responsibilities 1.4.4 Competency-based training is provided to the clinicall workforce to improve safety and quality
	EVALUATE Evaluate escalation processes for patients, families and carers	Patients, families and carers Health service managers Health professionals with responsibility for policy or quality improvement Clinicians	7.1 Data should be collected and reviewed locally and over time regarding the implementation and effectiveness of recognition and response systems	1.20.1 Data collected from patient feedback systems are used to measure and improve health services in the organisation 9.9.3 The performance and effectiveness of the system for family escalation of care is periodically reviewed 9.9.4 Action is taken to improve the system performance for family escalation of care

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