



Capabilities for recognising and responding to acute deterioration in hospital

The Health Quality & Safety Commission recommends clinical leaders in health organisations regularly review what training clinicians with different roles in their recognition and response system need. This factsheet provides helpful information and links to resources.

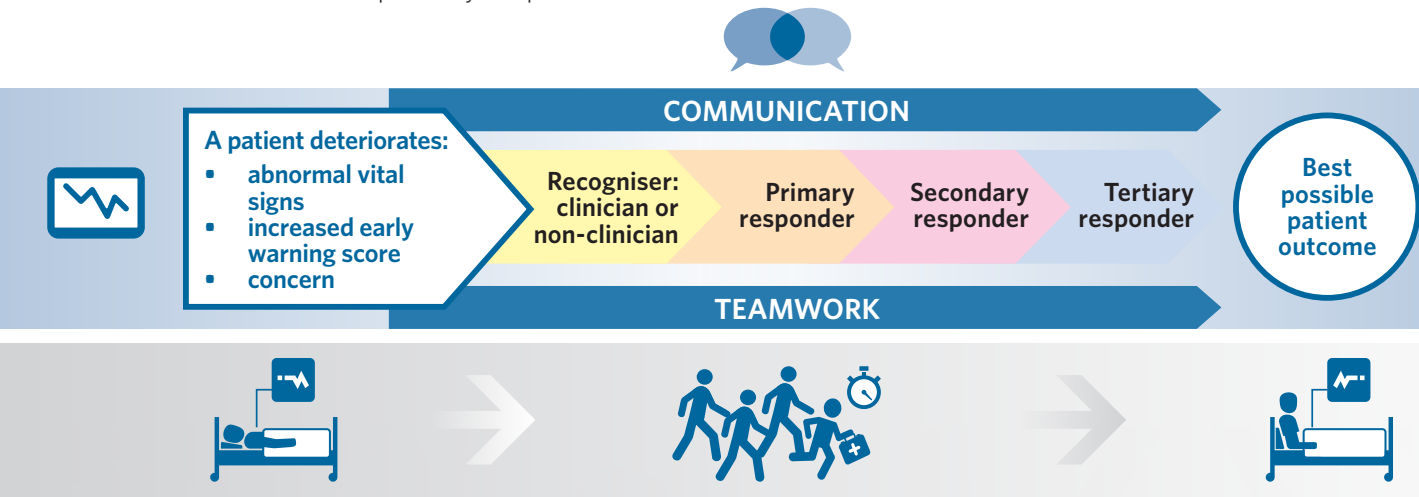
For recognition and response systems to be effective, all the people involved must have the skills and knowledge needed at every step.

- **Patients and whānau** must know how to ask for help if they are concerned, through a clearly identified process, such as Kōrero mai.
- **Auxiliary staff, such as cleaners, ward clerks and orderlies** must know how to activate emergency systems.
- **Clinicians (doctors, nurses, midwives and allied health staff)** must have skills ranging from understanding vital signs and early warning scores through to talking about shared goals of care with patients and whānau for shared decision-making.

As a patient's deterioration becomes more severe, responding clinicians must be progressively more skilled. Any clinician may have the relevant skills with appropriate training, expertise and support.

Roles in the recognition and response system

The figure below illustrates the different roles in a recognition and response system. It is likely that many clinicians will play more than one role in the chain of recognising and responding to patients who acutely deteriorate (for example, the recogniser may also be the primary responder).



The clinician recogniser talks with the patient and their whānau, monitors the patient's condition, interprets designated measurements, observations and information, adjusts the frequency of vital sign measurements and decides whether additional monitoring activities are needed. This may be in consultation with colleagues.



The non-clinician recogniser – such as patients, whānau, ward clerks, cleaners or orderlies – asks for help when they are worried about acute changes in the patient's condition. There is a clear Kōrero mai pathway for these recognisers to follow, in order to be heard.



The primary responder interprets vital sign measurements, undertakes further clinical assessment, communicates with the other clinicians who are responsible for the patient's care, and initiates a management plan, taking into consideration the shared goals of care discussion and decision (such as starting oxygen therapy, providing treatment and determining the need for further investigations and criteria for review).



The secondary responder attends when a patient fails to respond to the primary intervention or continues to deteriorate. Secondary responders assess the clinical effect of previous interventions, formulate a differential diagnosis, refine the management plan, initiate further treatment and investigation, and have the knowledge to recognise when to make an urgent referral to a senior specialist.



The tertiary responder attends when episodes of severe deterioration occur. Their response is directed by the agreed and documented shared goals of care decision. A single clinician or a team of clinicians may fill this role, which involves appropriate advanced life support skills and expertise in assessing and managing critical illness and multi-organ failure. Tertiary responders also require advanced skills in situational awareness, leading emergency teams and communicating in difficult situations (for example, breaking bad news).



Capabilities

Much of the training and education clinicians need to safely care for patients who clinically deteriorate overlaps considerably with the training and education they need to look after any acutely unwell patient. For example, all clinicians practising in acute hospitals need skills in monitoring and interpreting vital signs, providing emergency interventions, and effective and empathetic communication with whānau. All of these skills are essential for those providing care to deteriorating patients.

The list of resources below, although not comprehensive, provides a useful starting point to help health organisations and clinical educators consider what clinical competencies and capabilities people with different roles in their recognition and response system need.

RESOURCES

- The United Kingdom National Health Service's *Competencies for Recognising and Responding to Acutely Ill Patients in Hospital* (2009) lists suggested clinical competencies for each role within a recognition and response system.
www2.rcn.org.uk/_data/assets/pdf_file/0004/435586/Competencies_for_Recognising_and_Responding_to_Acutely_Ill_Patients_in_Hospital_2009.pdf
- In *TeamSTEPPS for rapid response systems* (2014), the Agency for Healthcare Research and Quality in the United States of America outlines strategies for fostering effective teamwork.
www.ahrq.gov/teamstepps/rrs/instructor_slides/rrsinstructmod.html
- The Australian *End-of-life Essentials: Education for Acute Hospitals* (2016) is a series of online learning modules about end-of-life care for hospital-based clinicians.
<https://www.caresearch.com.au/caresearch/tabid/3866/Default.aspx>
- Examples of resources describing capabilities required for tertiary responders are:
 - *Joint Position Statement on Rapid Response Systems in Australia and New Zealand and the Roles of Intensive Care* (College of Intensive Care Medicine of Australia and New Zealand and Australian and New Zealand Intensive Care Society, 2016)
www.cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Professional%20Documents/IC-25-Joint-ANZICS-and-CICM-Rapid-Response-Systems-Position-Statement.pdf
 - The United Kingdom National Outreach Forum's *Operational Standards and Competencies for Critical Care Outreach Services* (2012)
www.norf.org.uk/Resources/Documents/NORF%20CCCO%20and%20standards/NORF%20Operational%20Standards%20and%20Competencies%201%20August%202012.pdf

Clinicians need both technical/clinical (for example, clinical interventions such as intravenous line insertion or intubation) and non-technical (for example, situational awareness, communication and team leadership skills) skills and knowledge to effectively recognise acute deterioration and take appropriate action.¹ Table 1 overleaf lists the desirable non-technical skills for clinicians providing a response to acute deterioration.

¹ Fletcher G, Flin R, McGeorge P, et al. 2003. Anaesthetists' Non-Technical Skills (ANTS): evaluation of a behavioural marker system. *British Journal of Anaesthesia* 90(5): 580–8. D Massey, W Chaboyer, V Anderson. 2016. What factors influence ward nurses' recognition of and response to patient deterioration? An integrative review of the literature. *Nursing Open* 4: 6–23.

Many of these skills may also be desirable for clinicians primarily responsible for recognising acute deterioration and escalating care. Key non-technical skills for recognisers include:

- leadership skills that clinicians can use to speak up and act with confidence²
- communication skills such as graded assertiveness and being able to 'package' deterioration in medical language in order to get the necessary response from responders³
- skills in teamwork to prompt rapid action in crises.⁴

Table 1: Desirable non-technical skills for responders

CATEGORY	ELEMENT	SKILL DEFINITION
 <p>Task management</p>	Planning and preparation	Use available time to anticipate potential interventions
	Prioritising	Identify key issues and allocate attention accordingly. Avoid distractions from less important matters
	Maintaining standards	Follow good practice, checklists, treatment protocols
	Identifying and using resources	Establish what is required to complete the task (people, expertise, equipment, time). Match requirements with available personnel
 <p>Teamwork</p>	Coordinating activities with the team	Actively maintain collaborative approach for both physical and cognitive activities
	Exchanging information	Give and receive knowledge and data needed to coordinate the team and complete the task
	Using authority and assertiveness	Lead team and escalate by grades if required
	Assessing capabilities	Observe behaviour of other team members, including how their performance changes with stress or fatigue
	Supporting others	Provide physical, cognitive or emotional help to other team members
 <p>Situational awareness</p>	Gathering information	Actively collect data, monitor the whole environment and verify reliability of data
	Recognising and understanding	Identify potential mismatch between situation and expected state
	Anticipating	Ask 'what if' questions and predict effect of interventions
 <p>Decision making</p>	Identifying options	Generate alternative possibilities to solve identified problems
	Balancing risk and selecting options	Actively consider pros and cons of specific interventions and then make informed choice
	Re-evaluating	Continually review suitability of identified options and assess situation following implementation. Can change course when required

SOURCE: Myers JA, Powell DMC, Psirides A, et al. 2016. Non-technical skills evaluation in the critical care air ambulance environment: introduction of an adapted rating instrument: an observational study. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* 24: 1-11.

- 2 Hart PL, Spiva L, Baio P, et al. 2014. Medical-surgical nurses' perceived self-confidence and leadership abilities as first responders in acute patient deterioration events. *Journal of Clinical Nursing* 23: 2769-78.
- 3 Andrews T, Waterman H. 2005. Packaging: a grounded theory of how to report physiological deterioration effectively. *Journal of Advanced Nursing* 52: 473-81.
- 4 Gazarian PH, Henneman EA, Chandler GE. 2010. Nurse decision making in the prearrest period. *Clinical Nursing Research* 19: 21-37.