Capabilities for recognising and responding to acute deterioration in hospital

The Health Quality & Safety Commission recommends health organisations work with their clinical leaders to identify 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, families and whānau** must know how to ask for help if they are concerned.
- **Ward clerks and orderlies** must know how to activate emergency systems.
- **Clinicians (doctors, nurses and allied health staff)** must have skills ranging from understanding vital signs and early warning scores through to making decisions about end-of-life care.

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).

A patient deteriorates:
- abnormal vital signs
- increased early warning score
- concern

**Best possible patient outcome**

**COMMUNICATION**

**TEAMWORK**

**The clinician recogniser** talks with the patient and their family and 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.

**The non-clinician recogniser** – such as patients, families, whānau, ward clerks or orderlies – asks for help when they are worried about acute changes in the patient’s condition.

**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 (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. 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).
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 families and 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.

- 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.

- Examples of resources describing capabilities required for tertiary responders are:
  - 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. Table 1 overleaf lists the desirable non-technical skills for clinicians providing a response to acute deterioration.

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 confidence
- communication skills such as graded assertiveness and being able to 'package' deterioration in medical language in order to get the necessary response from responders
- skills in teamwork to prompt rapid action in crises.

Table 1: Desirable non-technical skills for responders

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


