Recognising and Responding to Clinical Deterioration in Acute Health Care Audit Tools Definitions

The following definitions and examples apply to the Clinical Deterioration Audit Tools:

1. Observation Chart
   a. Single parameter tool (track and trigger)
   b. Aggregate scoring system
   c. Combination system eg. Q-ADDS
   d. Non track and trigger

1. Observation Chart

Ensuring that patients who deteriorate receive appropriate and timely care is a key safety and quality challenge. All patients should receive comprehensive care regardless of their location in the hospital or the time of day. Even though a range of systems have been introduced to better manage clinical deterioration, this area needs to remain a high priority while patients continue to experience preventable adverse events because their deterioration is not identified or properly managed.

The **objective of an observation chart is to present the most important vital signs for detecting deterioration** in most patients in a user-friendly manner. One of its specific aims is to detect deterioration rather than being a general observation chart.

One of the factors that can contribute both to poor recording of observations and failure to interpret them correctly is the way in which observation charts are designed and used. The use of human factors principles in their design supports accurate and timely recognition of clinical deterioration, and prompts action when deterioration is observed.

Many types of general observation charts exist in Queensland Health. Examples of the various types of tools are shown here to assist you in determining which tool your facility/ward uses.
a) **Single parameter tool (track and trigger)** - Vital signs are compared with a simple set of criteria with predefined thresholds, with a *response* algorithm being *activated when any criterion is met*.

The main vital signs are graphed so that trends can be easily ‘tracked’. There are also colour coded zones to indicate when patient observations are likely to represent deterioration, where a response is ‘triggered’. Incorporating call criteria in observation charts is an effective way in which to highlight possible deterioration and assist clinicians with making decisions as to when to ‘trigger’ a response, whether that be for a clinical review or rapid response call.

**Example - MECC (Medical Emergency Call Criteria)**

![Example Chart]

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**Example Chart**

<table>
<thead>
<tr>
<th>MECC Criteria</th>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1. Verify patient’s condition and set observations in 10 minutes.</td>
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<tr>
<td></td>
<td>2. If observations remain in the vital area, contact the patient’s treating team and investigate.</td>
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<td></td>
<td>3. If observations remain within 15 minutes, or patient deteriorates, go to Medical Emergency Call Criteria (MECC) and contact the patient’s treating team.</td>
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<td>4. Ensure all vital signs are documented.</td>
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<td>5. Document all actions on the St Vincent’s Clinical Quality Report.</td>
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</tbody>
</table>

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b) Aggregate scoring system - Core observations attract a weighted Score. “**Weighted scores** are assigned to physiological values and **compared** with predefined trigger thresholds. The main vital signs are collected and points are allocated. The points for each observation are added to give a score that helps identify patients with subtle signs of deterioration. A supporting Action Plan triggers certain actions when certain scores are reached.


c) Combination system - **Single or multiple parameter systems** used in combination with aggregate weighted scoring systems.

Scores for all physiological parameters are **summed up** to obtain a total score
Scores for all physiological parameters are summed up to obtain a total score.
d) Non track and trigger - Other observations charts may include the collection of vital signs with no scoring or no criteria for a response

Acute Observation Chart


Further information can be found at:

- Queensland Health staff can access information on Recognition and Management of the Deteriorating Patient via the Queensland Health intranet Patient Safety website.
We recognise and appreciate that there may be gaps in the scope and questions included in these tools, however, as this is a ‘Work in Progress’, future versions will build upon the existing scope and questions, and incorporate staff feedback and suggestions for improvement.

The Patient Safety and Quality Improvement Service, Clinical Excellence Division, welcomes feedback on the audit tools and the measurement plans, to ensure the tools meet the needs of Hospital and Health Services. We appreciate any feedback you can provide for the next version.

Please email Patient Safety and Quality Improvement Service on PSQIS_Comms@health.qld.gov.au for feedback or comments.