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# Paediatric early warning system –

# project charter template

|  |  |  |  |
| --- | --- | --- | --- |
| Organisation name |  | | |
| Date and version |  | | |
| Author |  | Executive sponsor |  |
| Project lead |  | Clinical lead |  |
| Clinical lead |  | Clinical lead |  |

## Purpose of the project charter

This charter describes the project to prepare for and implement a paediatric early warning system (PEWS) in [name of hospital/s].

## Why paediatric deterioration is a problem

There is limited published evidence about the degree or extent of failures to recognise or respond to acute deteriorating tamariki (children) in Aotearoa New Zealand hospitals or in the international literature. However, use of paediatric early warning tools and a systematic approach to escalation and response to tamariki at risk of deterioration is widely recommended.[[1]](#footnote-2),[[2]](#footnote-3),[[3]](#footnote-4),[[4]](#footnote-5)

The evidence that is available states there are opportunities for improvement in:

* care processes such as vital signs recording
* escalation to experienced clinicians
* timeliness of senior clinician review
* documentation and communication relating to episodes of acute paediatric deterioration[[5]](#footnote-6),[[6]](#footnote-7),[[7]](#footnote-8)

Patients and whānau often recognise subtle signs of patient deterioration, even if vital signs are normal, but clinicians respond variably to these concerns. There have been reported events where concerns have not been responded to, with significant harm to patients. A recent report by the Health and Disability Commissioner about a pattern of poor care of a tamariki is an example.[[8]](#footnote-9)

*[Briefly describe here any specific problem or issue in your hospital or the specific area in your hospital that the project needs to address. Provide data to support your problem statement.]*

## How a PEWS aligns with our aims and vision

*[Briefly describe how this project aligns with your organisation’s aims and vision.]*

## What we aim to accomplish with a PEWS

*[Describe what you aim to accomplish from this project in your hospital/s. The aim statement should be specific, measurable, attainable, relevant and time bound. Agree this once you have completed your current state assessment. Until then, an interim aim could be: Understand what our challenges and opportunities are for making improvements to the PEWS. Appendix 1 provides space for your driver diagram.]*

## Project scope

This section sets out the boundaries of the project.

*[Describe the scope of the project and anything that is out of scope.]*

|  |  |
| --- | --- |
| **Areas within scope** | **Areas outside scope** |
| *Example: Any tamariki assessed at hospital with observations and/or admitted to hospital such as in the emergency department, in a paediatric assessment unit or within a paediatric ward* | *Examples: Intensive care unit, high-dependency unit, post-anaesthesia care unit* |

## Approach to preparing for and implementing the PEWS

*[Give a brief outline of what you will be implementing, where and when. This is where you identify whether you are doing a hospital-wide or phased implementation.]*

## How we will know we have been successful

*[Set out the measurement plan for your project by identifying outcome, process and balance measures and how they will be calculated and collected. In the table below, we’ve listed what we would like you to collect for process and outcome measures and identified some potential balance measures; refer to the measurement guidance for definitions.[[9]](#footnote-10) You may have additional measures you wish to include.*

|  |  |  |
| --- | --- | --- |
| **Outcome measures\*** | **How to calculate** | **Guidance for data collection and reporting** |
| * Number of in-hospital cardiopulmonary arrests in paediatric inpatient wards * Number of rapid response escalations * Number of unplanned admissions to a higher level of care |  | Agree how you will collect this information each month.  At the end of each month, enter the data into the **data collection tool** provided. |
| **Process measures**\*\* | **How to calculate** | **Guidance for data collection and reporting** |
| * Percentage of patients receiving appropriate frequency of vital sign monitoring * Percentage of patients where the use of incomplete and partial sets of vital signs was appropriate * Percentage of patients with complete core vital sign set for the most recent set of vital signs * Percentage of recording of each core vital sign * Percentage of patients with a partial PEW score for the most recent vital sign set * Percentage of patients with the reason documented for a partial or incomplete recording * Percentage of patients with whānau concern recorded for the most recent vital signs set * Percentage of patients with whānau concern acted on for the most recent vital signs set * Percentage of patients with correctly calculated PEW score for the most recent vital signs set * Percentage of patients with the complete vital signs set calculated correctly for the most recent vital signs set * Percentage of patients with the partial vital signs set calculated correctly for the most recent vital signs set * Percentage of patients with modification made to PEW score triggers * Percentage of patients with clinical requirements recorded for modifications * Percentage of patients with documentation requirements recorded for modifications * Percentage of patients that triggered an escalation * Percentage of patients that triggered an escalation for whom the escalations occurred as per pathway * Percentage of patients that triggered an escalation for whom the response occurred as per pathway * Percentage of patients that triggered an escalation for whom the responder completed documentation as per local policy * Percentage of patients that triggered an escalation for whom the recogniser completed documentation as per local policy | Using the audit form  Calculated automatically using the **data collection tool** provided | Audit 10 charts per week per ward during the three to six months of implementation.  Enter audit data into the**data collection tool** provided.  Extract charts from the tool and share with the ward staff, project team and governance group. |
| Other measures you could consider: proportion of eligible areas within the hospital using the four age-based paediatric vital signs charts, level of governance support, key outputs in place (eg, policy, champions, use of end-of-life pathway box on charts) | Decide how to calculate | Decide how to collect and report data |
| **Balance measures**\*\*\* | **How to calculate** | **Guidance for data collection and reporting** |
| Balance measures to consider include:   * *Example – Staff comments about increased workload due to frequency of observations and response* * *Example – Nurses feel the PEWS erodes their clinical judgement* * *Example – Staff feel the escalation pathway is overly sensitive, resulting in desensitisation of response* * *Example – Greater reliance on the rapid response team than the home team for the care of deteriorating tamariki* | *Example – Compare feedback from staff with related process measures* | *Example – Have options available for staff to give their feedback (eg, email, butcher’s paper). Check this is not just a symptom of initial change – review over a 3-month period.*  *Follow up with staff. You may need to do some sensitivity testing on your escalation pathway.* |

\* Outcome measures are used to measure the performance of the system; they relate directly to the aim of the project and provide evidence that changes made are having an impact at the system level.

\*\* Process measures are used to measure whether an activity has been accomplished and can be leading indications of whether the project is likely to impact the outcome measure.

\*\*\*Balance measures monitor whether the project has any unintended consequences.

## How we will ensure sustainability

*[We suggest using the UK National Health Service’s sustainability model[[10]](#footnote-11) to guide your planning. Describe what you will do to make the new system sustainable.]*

## Project team roles, responsibilities and meeting frequency

*[Form a multidisciplinary project team. Identify who the team members are and their roles and responsibilities. The table below gives examples of roles.]*

The project team will meet *[identify how frequently the team will meet.]*

|  |  |  |
| --- | --- | --- |
| **Roles** | **Name** | **Responsibilities** |
| Executive sponsor |  |  |
| Project lead |  |  |
| Clinical lead nursing |  |  |
| Clinical lead paediatrics |  |  |
| Clinical lead paediatrics anaesthesia |  |  |
| Charge nurse manager |  |  |
| Nurse educator |  |  |
| Two whānau who regularly access the service to represent consumers |  |  |
| Māori health advisor |  |  |
| Pacific health advisor |  |  |
| Quality improvement advisor |  |  |
| Data collector/auditor |  |  |
| Administrator |  |  |

## Project oversight

*[Describe which group the project team will report progress to and where the team will escalate concerns and issues to for resolution.]*

## Risks and issues

*[List any potential risks and known issues (this includes opportunities and challenges) for this project and how you will manage them.]*

## Stakeholder engagement

A stakeholder is a person, group or organisation that has interest in and influence on this project. Stakeholders might be affected by the actions, objectives or outcome of the project.

*[Use the separate stakeholder assessment template to identify stakeholders associated with preparing and implementing the system. Briefly summarise your key stakeholders in the template and describe how you will engage with them and who will be responsible for doing this and when.]*

## Milestones and activities

*[List the project’s milestones and key activities, the timeframe for each one and who will be responsible for them. Below are suggestions from the preparation and implementation guide.]*

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestones and key activities** | **Start date** | **End date** | **Who** |
| **Plan what you will do and how you will do it** | | | |
| Establish the project team and executive sponsor(s) |  |  |  |
| Agree project oversight and project progress reporting |  |  |  |
| Align the project to your organisation’s aim |  |  |  |
| Know your starting point – complete current system assessment |  |  |  |
| Agree what you are trying to achieve (a project aim) |  |  |  |
| Agree how you will know you have been successful (a measurement plan) |  |  |  |
| Confirm what, when and how you will be implementing (implementation approach) |  |  |  |
| Build in sustainability |  |  |  |
| Complete stakeholder assessment (started in planning workshop) |  |  |  |
| Agree how you will engage with staff and other groups |  |  |  |
| Document agreements (complete project charter) |  |  |  |
| **Checkpoint review**: are we ready to move to next stage? |  |  |  |
| **Prepare for implementation** | | | |
| Establish clinical governance for PEWS |  |  |  |
| Agree local escalation pathway by completing the mapping tool |  |  |  |
| Put escalation pathway and logos into paediatric vital signs chart |  |  |  |
| Agree what will be on the back of the paediatric vital signs chart and send to the Health Quality & Safety Commission (the Commission) team |  |  |  |
| Assess challenges and opportunities for the PEWS |  |  |  |
| Complete stocktake of local policies |  |  |  |
| Review and update relevant local policies to reflect the PEWS |  |  |  |
| Complete a stocktake of your existing vital signs charts |  |  |  |
| Send information to the Commission on how many charts you will need for the three-month implementation period |  |  |  |
| Update the electronic charting tool (if on electronic system) |  |  |  |
| Communicate project to the organisation |  |  |  |
| Engage with staff and whānau |  |  |  |
| Educate staff on the new system |  |  |  |
| **Checkpoint review**: are we ready to move to the next stage? |  |  |  |
| **Countdown to implementation** | | | |
| Start the final countdown three weeks before launch |  |  |  |
| Report progress to executive sponsor and clinical governance group |  |  |  |
| Engage with staff and whānau at every opportunity |  |  |  |
| Communicate project to the organisation |  |  |  |
| Check staff are prepared one week before launch |  |  |  |
| **Checkpoint review**: are we ready to launch? |  |  |  |
| Put the four new paediatric vital signs charts stocks into agreed area(s) and remove all stocks of old paediatric vital signs charts (night before launch) |  |  |  |
| **Implement and sustain** | | | |
| Launch and celebrate |  |  |  |
| Monitor progress on the agreed area(s), eg, engage regularly with champions, review and respond to emails, queries and comments |  |  |  |
| Measure for improvement – weekly audits (following measurement plan) and feedback to wards and governance |  |  |  |
| Measure for improvement – monthly collection of outcome measures (following measurement plan) and feedback to wards and governance |  |  |  |
| Report on progress to executive sponsor(s) and clinical governance group |  |  |  |
| Educate new staff |  |  |  |
| Participate in regular Commission Zoom meetings |  |  |  |
| Celebrate achievements by the team and those implementing throughout the first six months of implementation |  |  |  |
| Roll out across the hospital(s) (if phased implementation) |  |  |  |
| Hand over to those responsible for ongoing sustainability |  |  |  |

## Appendix 1: Driver diagram

*[Work with your quality improvement advisor to develop a driver diagram for your project and include it here. You can use the example in the preparation and implementation guide and tailor it for your organisation.]*

[Template developed for implementation by the Health Quality & Safety Commission in October 2022]

1. Australian Commission on Safety and Quality in Health Care. 2012. *National Safety and Quality Health Service Standards* (September 2012). Sydney: Australian Commission on Safety and Quality in Health Care. [↑](#footnote-ref-2)
2. National Confidential Enquiry into Patient Outcome and Death. 2011. *Are we there yet? A review of organisational and clinical aspects of children's surgery*. London: National Confidential Enquiry into Patient Outcome and Death. [↑](#footnote-ref-3)
3. Royal College of Paediatrics and Child Health. 2016. A safe system for recognising and responding to children at risk of deterioration. London: NHS Improvement. [↑](#footnote-ref-4)
4. Roland D, Tilwelee P, Fortune P, et al. 2021. Case for change: a standardised inpatient paediatric early warning system in England. *Archives of Disease in Childhood* 106(7): 648–51. DOI: 10.1136/archdischild-2020-320466 [↑](#footnote-ref-5)
5. Tume L. 2007.The deterioration of children in ward areas in a specialist children’s hospital. *Nursing in Critical Car*e 12: 12‒9. [↑](#footnote-ref-6)
6. Health and Disability Commissioner. 2009. Case 08HDC04311 Paediatric House Officer, Dr B; Bay of Plenty District Health Board. Wellington: Health and Disability Commissioner. [↑](#footnote-ref-7)
7. Health and Disability Commissioner. 2015. Case 13HDC00482 Anaesthetist, Dr B; Registered Nurse, RN D; Registered Nurse, RN C; West Coast District Health Board. Wellington: Health and Disability Commissioner. [↑](#footnote-ref-8)
8. Health and Disability Commissioner. 2021. Case 18HDC01075. Counties Manukau District Health Board. Wellington: Health and Disability Commissioner. [↑](#footnote-ref-9)
9. All resources relating to the PEWS will be available on the HQSC website. [↑](#footnote-ref-10)
10. NHS Institute for Innovation and Improvement. 2010. *Sustainability Model and Guide*. Coventry: NHS Institute for Innovation and Improvement. URL: <http://webarchive.nationalarchives.gov.uk/20160805122021/http://www.nhsiq.nhs.uk/media/2757778/nhs_sustainability_model_-_february_2010_1_.pdf> (accessed 9 September 2021). [↑](#footnote-ref-11)