Northern Light Health

From the Office of Clinical Informatics

Cerner Millennium
Rapid Response Nursing Workflow

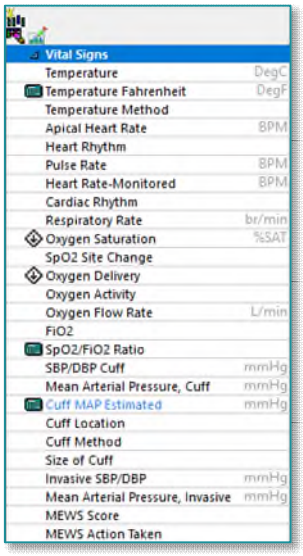
September 11, 2023

The Rapid Response Early Warning System has been implemented to quickly identify early stages of clinical decline or distress. This Rapid Response algorithm uses clinical assessment documentation and the Modified Early Warning System (MEWS) and Pediatric Early Warning System (PEWS) scores to alert nursing staff of patient decline or distress. Tasks are also sent to CareCompass to assist with monitoring of patients.

Rapid Response Documentation and Alerting

NOTE: **The Early Warning alerts DO NOT replace the nurse or other staff members clinical judgement of when to call a Rapid Response. These alerts are designed to recognize an early decline in the patient's status and prompt the nurse to call the Rapid Response before the patient deteriorates further.**

Once Clinical Staff complete documentation of vital signs and level of consciousness, the algorithm gathers data and calculates a Modified Early Warning System (MEWS) score for adults. The Pediatric Early Warning System (PEWS) score for pediatric patients is calculated by entering Behavior, Cardiovascular, Respiratory, and Other Criteria within the Pediatric Early Warning System section of the Pediatric Quick View or Early Warning and Rapid Response Interactive View and I&O bands.



- **Modified Early Warning System (MEWS) Score**
  - The score is calculated based on the **Respiratory Rate**, **Heart Rate**, **Systolic Blood Pressure**, **Level of Consciousness**, and **Temperature**.
  - The MEWS score is viewable within the **Vital Signs** section of the **Adult Systems Assessment** and **Early Warning and Rapid Response** Interactive View and I&O bands.
  - A discern alert fires if the clinical assessment documented meets the early warning criteria.
- **MEWS Scoring**

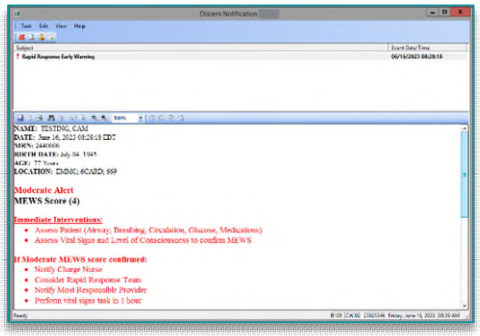
Score	3	2	1	0	1	2	3
Respiratory Rate per minute		< 8		8-14	15-20	21-30	> 30
Heart Rate Per minute		<40	40-50	51-100	101-110	111-129	>129
Systolic Blood Pressure	<70	70-80	81-100	101-200		>200	
LOC	Comatose	Stuporous / obtunded	Lethargic	Alert or Hyper alert			
Temperature Celsius		<35.0	35.0-36.0	36.1-38	38.1-38.6	>38.6	

➢ PEWS Scoring

Score	0	1	2	3
Behavior	Playing/Appropriate	Sleeping	Irritable	Lethargic/Confused or Reduced responds to pain
Cardiovascular	Pink or capillary refill 1-2 second	Pale or dusky or capillary refill 3 seconds	Gray or cyanotic or capillary refill 4 seconds or Tachycardia of 20 meats per minute above normal rate	(one of the below) Gray or cyanotic and mottled Capillary refill 5 seconds or above Tachycardia of 30 beats per minute above normal rate Bradycardia
Respiratory	Within normal parameters, no retractions	Greater than 10 bpm above normal or use of accessory muscles or Greater than 30% FIO2 or 3 L/min	Greater than 20 bpm above normal or retractions or Greater than 40% FIO2 or 6 L/min	Greater than/equal 5 bpm below normal, retractions/grunting or Greater than 50% FIO2 or 8 L/min
Nebulizer every 15 minutes	No		Yes	
Persistent Vomiting Following Surgery	No		Yes	

➢ MEWS Alerts

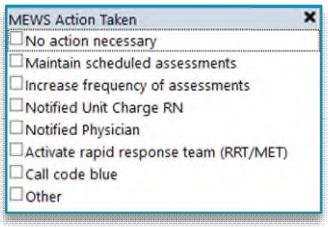
- The Rapid Response Early Warning Alert displays patient demographics, MEWS/PEWS score, immediate interventions, and criteria leading to the score.
  - **Moderate Alert:** MEWS score of **4**.
  - **High Alert:** MEWS score is **greater or equal to 5**.



NOTE: **The first recommendation of a High Alert is to call a Rapid Response.**

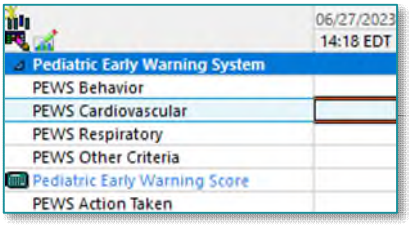
➢ MEWS Action Taken

- The **MEWS Action Taken** field allows the nurse to document the action taken after receiving the MEWS score or alert.



➢ Pediatric Early Warning System (PEWS)

- The score is calculated by most recent documentation of **Behavior**, **Cardiovascular**, **Respiratory**, **Other Criteria** within the **Pediatric Early Warning System** section of the **Pediatric Quick View** or **Early Warning and Rapid Response** Interactive view and I&O bands.
- A discern alert fires if the clinical assessment documented meets the early warning criteria.

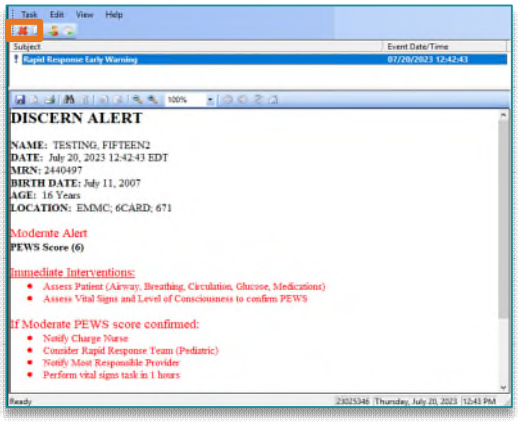


➢ **PEWS Alerts**

- The **Rapid Response Early Warning Alert** displays patient demographics, MEWS/PEWS score, immediate interventions, and criteria leading to score.
  - **Moderate Alert:** PEWS score is **Between 3-6**.
  - **High Alert:** PEWS score is **greater or equal to 7**.

➢ **Clearing the Discern Alert**

- After reviewing the alert, click the **red X** in the upper left corner of the Discern Alert.



CareCompass

In CareCompass, nursing will notice new orders and tasks based off the MEWS/PEWS scores.

➢ **MEWS Vital Sign Order Task**

- If the patient has a MEWS score between 3-4, an order and task will fire for vital signs to be repeated after 1 hour.
- If the patient scores 5 or greater, an order and task will fire for vital signs to be repeated in 30 minutes if a Rapid Response has not been called for the patient.

➢ **PEWS Vital Sign Order Task**

- If the patient has a moderate PEWS score between 3-6, an order and task will fire for vitals to be repeated in 1 hours.
- If the patient has a high PEWS score of 7 or greater, an order and task will fire for vitals to repeated in 30 minutes if a Rapid Response has not been called for the patient.

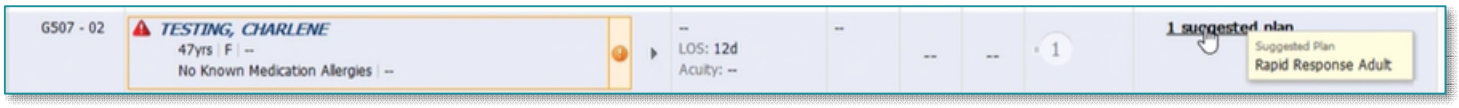
➢ **Alert Icon ( )**

- The **Alert** icon appears in CareCompass next to the patient's name in addition to precautions currently displayed, such as isolation precautions, high fall risk, or suicide precautions.

- If a patient scores greater or equal to 5, a red triangle will show up next to the patient's name, indicating a high **MEWS** score is present.
- If a patient scores 7 or greater, a red triangle will show up next to the patient's name, indicating a high **PEWS** score is present.

➢ **Suggested PowerPlan**

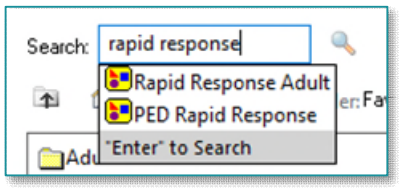
- Based on MEWS and PEWS scoring, the algorithm suggests ordering the Rapid Response PowerPlan.



FirstNet

The MEWS and PEWS vital sign tasks also flow to FirstNet Nurse Activities for patients who have been admitted and are still in the Emergency Department.

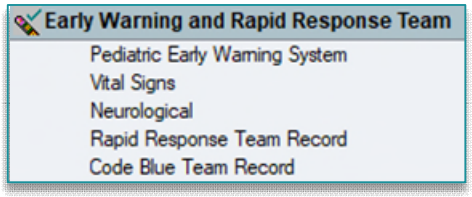
Rapid Response Adult and PEDS Rapid Response PowerPlans



The **Rapid Response Adult** and **PED Rapid Response** PowerPlans have been created to be initiated and used by the Rapid Response Team. The Rapid Response PowerPlan includes the most commonly used orders during Rapid Response situations.

For more information on Rapid Response PowerPlans, please review the flyer.

Early Warning and Rapid Response Team iView Band



Documentation of a Rapid Response is completed within the iView band.

NOTE: **If the band is not seen, it should be pulled into view.**

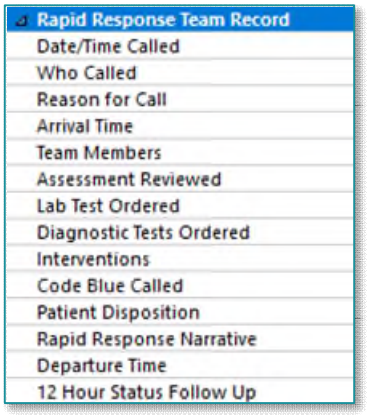
➢ **PEWS Section**

- Documentation of PEWS is carried through to the **Early Warning and Rapid Response Team** iView band if documented in the **Pediatric Quick View.**

➢ **Vital Signs**

- Vital Signs is carried through to this band if documented in the **Adult or Pediatric Systems Assessment** or **Adult or Pediatric Quick View** iView bands.
- Vital Signs can be charted from this section during the Rapid Response.

- **Neurological**
  - Neurological documentation is carried through to this section if documented in the **Adult Systems Assessment** or can be documented here during the Rapid Response.
- **Rapid Response Team Record**
  - The **Rapid Response Team Record** consists of the following documentation fields and should be documented as close to real time as possible or soon after the Rapid Response event has ended.
    - Date/Time Called
    - Who Called
    - Reason for Call
    - Arrival Time – the time the first team member arrives.
    - Team Members
    - Assessment Reviewed
    - Lab Test Ordered
    - Diagnostic Test Ordered
    - Interventions
    - Code Blue Called
    - Patient Disposition
    - Rapid Response Narrative
    - Departure Time – the time the Rapid response ends.
    - 12 Hour Status Follow Up



- **Code Blue Team Record**
  - If the Rapid Response turns into a Code Blue, document the event occurred within this section.
  - Code Blue documentation remains unchanged and takes place on paper.