

Quality Improvement Activity: Children Early Warning Score (CHEWS)

On September 1, 2021, a 7-year-old patient was seen in the Emergency Department. The patient was admitted with fever, a dry cough, fatigue, and poor appetite for the past three days. This patient also had a history of asthma. Upon admission to the ED, the patient's vital signs were temperature 101.2, respiratory rate of 28 breaths per minute, blood pressure of 98/63, and O2 sat of 89%. Oxygen was given to the patient via NC 2L, an antipyretic was administered, blood was drawn and a COVID test was done. Forty-five minutes later, vital signs were temperature 99.7, respiratory rate of 22, blood pressure of 99/64 and O2 sat of 97% on 2L via NC. The patient's labs came back, and it was positive for COVID. After starting COVID precautions and observing the patient for another hour, the patient was admitted to the pediatric medical surgical floor at 0615. The nurse that was leaving did quick vitals and assessment and gave report to the oncoming nurse. After report the nurse did full assessment and vitals at 0800. The nurse then sat down to document, including the CHEWS Tool. The nurse observed and documented that the patient scored a 0 for neuro since the patient was alert and interacting appropriately, a 0 for cardiovascular since skin tone was appropriate and capillary refill was <2 seconds, and a 2 only because the patient was on 2L via NC. The nurse also asked if there were any concerns with the parent, who said no. Overall the CHEWS score was a 2, which is still in green so continue to observe was indicated. At 1200 the nurse asked the aide if the patient was okay when she went in and did vitals, the aide said the patient was asleep and vitals were fine. So, without asking the parents if there were any concerns or checking the patient herself the nurse just dragged and dropped the 0800 CHEWS documentation of 2. At 1300, the patient's parent calls and says that she is worried about the patient, since she thinks the patient is paler and the O2 monitor number has gone down. The nurse goes and checks the patient and documents another CHEWS. She scores a 0 for neuro since the patient woke up with some gentle touch, cardiovascular a 1 since the patient was pale now, and respiratory a 0 since the O2 sat only went down 3 points. The patient had a score of 3, which is yellow and indicates that physician should be notified. However, since then the nurse thought that since it was a 3 which is the lowest score where an HCP needs to be notified, she would wait and instead check on the patient in one hour and see if anything has changed. But at 1336 the patient went into respiratory arrest and a rapid response code was performed.

In what way did the patient care or environment lack? Is this a common occurrence?

In this scenario, the patient care lacked because the nurse did not fully assess for the CHEWS scores. She did when the patient first got to the floor but did not for the next time, she had to chart the assessment. Instead, she asked the nurse aide what she thought rather than viewing the patient herself and speaking to the parent to see if there were any concerns. Second, when seeing the score in the yellow area, instead of immediately contacting the provider she instead decided to wait to see if anything changed. I do think that this can happen more common than

we think. With documenting CHEWS so often for all patients, a nurse can not give enough weight to the meaning and reasoning behind the assessment and just guess on documentation or drag and drop based off earlier viewing of the patient.

What circumstances led to the occurrence?

The circumstances that led to the respiratory arrest, is the fact that the nurse did not document a correct CHEWS at 1200. Also, when the parent called with concerns, and the nurse did document a correct CHEWS, the nurse did not take the proper precautions and notify a physician immediately of the deterioration of the patient, even if it was small at that moment. Also, when nurses get behind in charting, they can miss the proper time to complete a specific assessment, and this can easily happen with CHEWS.

In what way could you measure the frequency of the occurrence? (Interviewing nurses, examining charts, patient surveys, observation, etc.)

One way to measure the frequency of this occurrence is to monitor and measure how many times a patient goes into cardiac or respiratory arrest or has rapid deterioration. After seeing how many times these things occur, researching and seeing if the CHEWS matched the deterioration of the patients and if proper channels were notified when needed based off the score as well.

What Evidence based ideas do you have for implementing interventions to address the problem?

Implement protocols that will make sure that the CHEWS gets assessed by the correct person at the right time, and proper actions are taken at the right time could be made in order to stress the importance of this assessment.

- Having the nurse document, the number for each category as well as the specific symptoms could have them think a little bit more about the symptoms.
- Having a nurse co-sign, the documentation of CHEWS to confirm that the right steps were taken, and documentation was correct could hold the nurse accountable to notify the providers and take the correct steps.

How will you measure the efficacy of the interventions?

Measuring the efficacy of the interventions can be done by continuing to monitor how many times a cardiac arrest, respiratory arrest, or deterioration of a patient occurs and if the CHEWS

documentation matched. Also monitoring and seeing if the physicians are notified when alerted to by the CHEWS documentation.