IDENTIFYING HIGH RISK PATIENTS OUTSIDE OF THE INTENSIVE CARE UNIT USING AN EARLY WARNING SYSTEM

INTELLIGIBILITY OF THE CRITICAL CARE UNIT USING AN EARLY WARNING SYSTEM

BACKGROUND

- Failure to rescue identifies hospitalized patients who experienced negative outcomes because a deterioration in status was not recognized (Silber et al., 1992).
- Initially, failure to rescue referred to patients who suffered a demise; broadened to include those with significant deterioration in which identification of the status change was delayed (Thielen, 2014).
- The Institute for Healthcare Improvement recommends early warning systems be used to monitor all patients in the acute care setting:
  - Early recognition of deterioration
  - Ensure timely escalation of care
- Most hospitalized patients who experienced a cardiopulmonary arrest exhibited a change in clinical parameters in the hours preceding the arrest (Stewart et al., 2014).
- Early warning systems provide clear criteria, prompt nurses to score the patient & take prescribed action to address patient’s needs (Hanley, et al., 2016).
- NEWS scores found that 40% of patients could have been identified using the scoring system prior to the event.
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METHODS

- Retrospective review of accuracy of Early Warning System (EWS) scores in identifying high-risk patients.
- MET RNs were asked to go back one hour prior to an emergent MET call and score the patients using the MEWS score.
- Code Blue patients were scored using the MEWS score one hour prior to the event from 4/2016 - 9/2016.
- Code Blues were assessed to determine if the MET team had been alerted prior to the code blue from 4/2016 - 9/2016.
- Nurses throughout the hospital were given a survey during skills day to assess the MET team and barriers to calling the MET team.
- NEWS (National Early Warning System) scores were applied retrospectively to Code Blue patients from 4/2018 - 6/2018.

RESULTS AND OUTCOMES

Code Blue patients:

- 61% had MEWS score of ≥3 one hour prior to Code Blue.
- 72% with a MEWS score of >3 were not on MET rounds prior to the Code Blue.
- 55% of emergent MET calls had a MEWS score of ≥3 one hour prior to the event.
- 100% of patients with a MEWS score of ≥6 one hour prior to an emergent MET call required a transfer to a higher level of care.
- 29% of floor nurses reported they were not comfortable with their assessment skills.
- NEWS Score found that 40% of patients could have been identified using the scoring system prior to the code.

REFERENCES

Available on request: Leslie.Farrington@stjoe.org

LIMITATIONS

- Need to have a computerized EWS score to determine effectiveness.
- No changes are being made to Meditech or Epic computer systems, therefore cannot test a computerized EWS scoring system.
- Delay because of the need to get approval from many entities and clinical decision teams before selecting a specific EWS.

NEXT STEPS

- Recent approval for the build of NEWS (National Early Warning System) into Meditech & EPIC.
- Conduct a NEWS paper & pencil pilot on the General Surgery Unit.
- Provide education on NEWS score to General Surgery nurses and MET Team nurses.
- Continue to gather Code Blue and emergent MET call data using NEWS score.
- Continue work to get NEWS system into Meditech and EPIC. Once NEWS is integrated into Meditech, education will be given for all bedside nurses (except ICU).

CONCLUSIONS / DISCUSSION

- It has been shown that an Early Warning System can be used as a tool for identifying patients at risk for deterioration.
- Increased recognition of patients at risk for deterioration could lead to increased MET rounding, decreased Code Blues and emergent MET calls and better patient outcomes.

LOCAL CONTEXT

- Currently, St Joseph Hospital (SJO) does not use an early warning system score to alert the bedside nurse or Medical Emergency Team nurse.
- SJO experienced 22% of Code Blues occurring outside of the ICU in FY 2018.