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Abstract

Background

Early identification of sepsis in the pediatric patient is essential in optimizing outcomes. There are many challenges in early identification of sepsis due to low specificity in screening tools in the pediatric population. Due to a change in the workforce with nearly 40-60% of staff less than 1 year at the institution coupled with the updated recommendation for pediatric sepsis in the inpatient setting, the purpose of this project is to reset foundational knowledge on pediatric sepsis in the inpatient setting (outside of the Intensive Care setting and Emergency Department) as a first step in a continuous QI effort. Additionally, the other intention was to evaluate the utilization of knowledge in the administration of one section of the sepsis bundle- administration time of antibiotics to patient.

Method

The project was a pre- post analysis of an innovative e- learning module. There was a total of 583 nurses who participated in the e- learning module. All participants were required to obtain a 100% rate in passing the examination. The knowledge analysis was focused on one unit, a pulmonary unit, which accounted for 83 of the 583 nurses who qualified for this analysis. We assessed if there was a difference in learners who required additional interventions versus only one intervention to answer the test questions confidently and correctly. When looking at the utilization of knowledge and assessing the clinical administration of time of antibiotics once sepsis was activated- all acute care units were taken into consideration, since all nurses received the e learning module.

Results

There was a total of 583 acute care nurses who completed the module with a 100% correctly and confidently. We closely analyzed 83 nurses who met criteria and there was no significance in nurses who required one versus multiple interventions to complete the module, even assessing different years of experience as a nurse. Additionally, we did not see a significance in the administration time, however there was trending downward of the time to administration that is closer to the recommended time of 60 minutes.

Conclusion

This innovative approach was to primarily improve the baseline knowledge of pediatric sepsis in the acute care nurses; however, this type of testing provides insightful opportunities that pose threats to the system, misinformation. This information will provide insight into future QI projects that focus on pediatric sepsis.

Keywords: sepsis, pediatric sepsis, quality improvement, nurse education