A Quality Improvement Initiative to Reduce Pediatric Intensive Care Unit Readmissions
Lara G. Smith DNP, RN, CPNP-AC/PC & Dannielle Sebbens DNP, RN, CPNP-AC/PC

Purpose: The purpose of this project in the Pediatric Intensive Care Unit (PICU) at St. Louis Children’s Hospital (SLCH) was to improve children’s health through implementation of a program that reduces readmission to the PICU from the floor within 24 hours of transfer. A pilot program of readmission risk assessment of all patients cared for on the PICU advanced practice registered nurse (APRN) service prior to transfer to the floor and follow-up evaluation within 24 hours of transfer by the critical care team for those patients deemed to be at risk for readmission.

Background: Patients transferred the floor after a PICU admission are at increased risk for readmission, longer length of stay, and mortality than patients who remain on the floor (Czaja, Hosokawa, & Henderson, 2013; Edwards, Lucas, Stone, Boscardin, & Dudley, 2013; Kotsakis, Stevens, Frndova, Neal, Williamson, Mohseni-Bod, & Parshuram, 2016). Identification of patients at risk to return to the PICU would be clinically beneficial. Risk determination alone may not be enough to keep patients from transferring back to the PICU. The addition of follow-up for patients determined to be at risk may increase the likelihood those patients are receiving the appropriate care to decrease the risk of return.

Methods: A pre and post implementation survey to assess the benefit of the process was administered. A risk assessment tool was refined and applied to PICU patients transferred to the floor. Patients identified at risk for readmission by the tool received a critical care follow up visit by a member the PICU APRN team, and additional care recommendations were made as needed.

Results: Survey respondents felt assessment for risk of readmission and critical care follow up would benefit patients and providers. Adherence to the process was monitored, including the risk assessment completion and follow up. 6.67% of patients required follow up. There were no PICU APRN service readmissions to the PICU during the implementation period.

Implications: A process that consistently and accurately assesses patients for risk of return to the PICU after transfer benefits pediatric patients, families, and institutions.

Open Ended Question: What additional effects were noted with the evaluation of patients for follow up?

References:


A Quality Improvement Initiative to Reduce Pediatric Intensive Care Unit Readmissions
Lara G Smith DNP, RN, CPNP-AC/PC & Dannielle Sebbens DNP, RN, CPNP-AC/PC
Saint Louis Children’s Hospital

Background

- Patients readmitted to the Pediatric Intensive Care Unit (PICU) from the floor are at risk for a longer secondary and total PICU length of stay (LOS) than those with a single index admission, and an increased risk of mortality (Czaja, Hosokawa, & Henderson, 2013; Edwards, Lucas, Stone, Boscardin, & Dudley, 2013).
- The purpose of this project in the PICU at SLCH was to improve children’s health through implementation of a program that reduces readmission to the PICU from the floor within 24 hours of transfer.
- This project took place in a 280 bed tertiary care academic hospital in a Midwestern city. The patients targeted were PICU Advanced Practice Registered Nurse (APRN) service patients transferring to two of the hospital floors for the pilot.

Methods

- The project was deemed a QI project by the IRB of Washington University School of Medicine and Rush University.
- The PICU nursing staff was educated regarding the administration of the Pediatric Early Warning System (PEWS) score.
- PICU APRNs were educated on risk assessment and critical care follow up requirements.
- Pre and postimplementation surveys were sent to third year residents
- PEWS scores and quantification of complex chronic conditions were used to determine patient’s need for critical care follow up after transfer to the pilot floors.
- Critical care follow up was completed regarding patients at risk for readmission per the risk assessment.
- Data collection included patients transferred, risk assessment results, critical care follow up, and readmissions to the PICU.

Results

- Pre implementation survey response rate 18%, most felt patients and providers would benefit from critical care follow up.
- 67 PICU APRN service patients transferred to pilot floors.
- 3 critical care follow ups triggered, 2 completed, 1 patient with PEWS done outside required timeframe may have met critical care followup criteria.
- 14 PEWS not administered (20%), 5 patients met complex chronic condition criteria.
- Post implementation survey response rate 3%, felt patients and providers would benefit from critical care follow up.

Conclusions

- This project benefits patients in an area with a paucity of evidence.
- Survey results showed providers feel patients would benefit from critical care follow up.
- Readmission rate for pilot was zero.
- Small pilot study, results may not be generalizable to all floor populations.

Recommendations

- Continue risk assessment and follow up process.
- Broaden focus to all patients transferred out of the PICU to the floor.

References