A Quality Improvement Initiative to Optimize Pediatric Post-Discharge Outcomes

Lisa Klosek

College of Nursing, East Carolina University

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Dr. Brad Sherrod DNP, RN, LSSBB

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Main Points

- The hospital discharge process can be a stressful time for both patients and their caregivers.
- Persistent gaps in aftercare follow-through reflect the patient and caregiver misunderstandings stemming from inconsistent or unclear discharge education.
- The Pediatric Hospital at Home (PHaH) program demonstrated a readmission rate for any diagnosis that was 3.1% less than the project site overall.
- A disproportionate number of readmissions were associated with one diagnosis, highlighting the need for targeted improvements in discharge education and closer monitoring for postoperative ileus in pediatric appendectomy patients.

Background and Purpose

There are many documented reasons for the high percentages of hospital readmissions, most of which are linked to the quality of the discharge education provided to patients and their families (Black et al., 2021). It is noted that an adverse outcome occurs in approximately 20% of patients discharged from hospital care, and that the same number of discharges require readmission; more than 50% of these are preventable (Pritt et al., 2021). The purpose of this project was to reduce 30-day readmission rates and emergency department revisits by providing patients and their caregivers with enhanced discharge education, including materials tailored to the patient's diagnosis, and by activating the patient portal. The enhanced discharge process supports health literacy and improved healthcare outcomes.

Methodology

The project focused on providing enhanced discharge education to parents and caregivers

of patients admitted to the PHaH program, aged 2 days to 17 years. The PHaH program is a branch of a 247-bed Level I pediatric trauma center and is also associated with an adult hospital at home program. The nurse navigators from the PHaH program participated in the project by disseminating educational materials to parents and caregivers at the time of transfer home from the program and by assisting families in activating the patient portal. Of the patients included in the project, 84% of their parents or caregivers received educational materials related to the diagnosis. During the implementation period, 93 patients were enrolled in the PHaH program, all of whom were included in the project. The project manager manually extracted data from the patient's electronic medical record (EMR) and tracked it in a spreadsheet throughout the implementation period. The project received an exemption from the Institutional Review Board (IRB).

Results

The patients enrolled in the PHaH program during the implementation period exhibited an unplanned 30-day Any Condition readmission rate of 3.2%, which outperformed the site facilities 6.3%. The 30-day Same Condition readmission rate for the project population was 2.2% compared to the facility's 1.9%. Additionally, 98% of parents and caregivers had an active patient portal for their child at discharge. It is noted that of the three readmissions, two of those were related to their initial admission for an appendectomy.

Strengths and Limitations

The project implementation process was not as robust as expected; however, attention was drawn to the need for continued work on discharge education and strategies to best educate the staff on how to deliver enhanced discharge education. An unintended finding was that most hospital readmissions were related to the same diagnosis as the initial admission. This has led to

conversations about a study on the frequency of post-appendectomy ileus in pediatric patients across both brick-and-mortar settings and the pediatric hospital at home. One of the most important limitations is that data can only be captured for hospital readmissions or emergency department revisits that occur within the same healthcare system. For various reasons, such as shorter wait times or closer proximity to their home, many patients seek care from more than one healthcare system. Another limitation was that the comparison data were from a traditional pediatric brick-and-mortar setting, not from another pediatric hospital-at-home setting.

Implications

Although barriers were encountered throughout the implementation period, the project revealed several valuable lessons. It was noted that to reduce hospital readmission rates and emergency department revisits, high-quality discharge education should be started as early in the admission process as possible, allowing time for information to be absorbed and for questions to be asked and answered (Centers for Medicare and Medicaid Services, n.d). To make the enhanced discharge process the most impactful, the following steps will be further taken:

- Submit the proposed educational documents for approval through the literacy department and the legal department for review and approval.
- Provide the staffing team with additional skills training on motivational interviewing, health literacy assessment, and plain language communication for topics such as medication reconciliation and early warning signs.
- Provide staffing that allows for personalized discharge sessions with the parents or caregivers within the comfort and safety of their home or via a video visit.

Conclusion

The barriers encountered during this project have proven to be learning opportunities that

can shape future enhancements to the discharge process for the PHaH program. At this time, the documented lower percentage of any-condition readmissions for the PHaH program cannot be attributed to the additional discharge information provided, given the many variables involved. As we continue to build on the enhanced process, data will continue to be collected, including patient satisfaction scores and follow-up appointments. The ongoing refinement of the enhanced discharge education process is progressing as a multidisciplinary initiative involving both pediatric and adult hospital at home teams. The expanded support and resources from the adult program will strengthen the infrastructure needed to advance the next steps and ensure successful implementation.

References

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