IMPLEMENTATION OF A STANDARDIZED GASTROSTOMY TUBE DISCHARGE BUNDLE FOR NEONATES

Lauren E. Keffer BSN, RN

BACKGROUND

A Gastrostomy tube (g-tube) is a surgically placed device indicated in pediatric patients who are unable to safely obtain nutrition by mouth.

2018 | 52-bed level IV Neonatal Intensive Care Unit (NICU) cared for 79 neonates requiring g-tube placement.

- 35% (n=28) visited the Emergency Department (ED) for g-tube related complications such as dislodgement, irritation dermatitis and leaking
- 15% (n=12) scheduled unplanned specialty clinic visits

OBJECTIVES

- Introduce a standardized gastrostomy tube discharge bundle for effectively educating caregivers prior to discharge from the NICU
- Familiarize learners with quality neonatal g-tube care and its ability to decrease unanticipated post-operative complications
- Recall strategies for increasing staff nurse knowledge, skills and attitudes towards g-tubes

METHODS

All g-tube patients in the NICU had a bundle remaining at their bedside from pre-surgery until discharge.

BUNDLE TASKS

- General Care
- Feeding Practices
- Trouble Shooting
- Provider Notification
- Patient Education Video

Measures & Data Collection

- Staff nurse knowledge, skills and attitudes (KSA) using Qualtrics staff surveys
- Bundle task compliance using weekly chart auditing and spot interviews

Analysis

- Run chart | Staff nurse g-tube bundle compliance
- Fishers Exact Test | compared ED and specialty clinic visits pre- and post-implementation
- Qualtrics Survey Software | compared differences in staff responses between pre and post KSA data

RESULTS

After implementation of the Standardized G-tube Discharge Bundle:

Unplanned ED and specialty clinic visits decreased from 50% to 0%

- Fisher exact test statistic value | p = 0.0086
- The result is statistically significant at p < .05

- Upwards trend in staff nurse bundle compliance at discharge
- Collaboration and communication tactics increased bundle compliance

Staff Nurse Surveys:

- Pre-implementation 89% completion rate | 45% ‘slightly comfortable’ in caring for g-tube patients.
- Post-implementation 72% completion rate | 90% ‘the g-tube bundle standardized teaching’ for caregivers.

DISCUSSION

This QI project was positively received by caregivers, staff nurses, providers and unit managers.

- Discharge planning and education may begin early with coordination of care and team-based approach
- Bundles are low cost and easy to assemble
- Increases in staff nurse comfortability leading to successful home transition
- Support from interdisciplinary leadership was pivotal in its success

Limitations

- COVID-19 pandemic – restricted caregiver visitation limited participation
- Limited time for follow up assessment to observe ED and specialty clinic visits for multiple months post-discharge

CONCLUSIONS

A standardized evidence-based g-tube discharge bundle decreases unplanned visits to the ED and unplanned specialty care visits

- The importance of education in caring for g-tube patients is vital in patients transition to home
- Early identification of goals, discharge needs and a standardized process aid in a smoother discharge process

Implications for Practice

- Improving satisfaction and confidence among health care providers
- Adoptable to other chronic pediatric populations and units

Strengths and Sustainability

- Creation of a divisional pediatric guideline
- Plan to replicate quarterly from a multidisciplinary approach
- EHR integration of Neonatal Gastrostomy Care

REFERENCES


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