

Scientific Session 1: Quality and Safety (continued)

16

IMPLEMENTATION OF A GASTROSTOMY CARE BUNDLE REDUCES EARLY DISLODGEMENTS

Marsha Pulhamus, CPNP, RN¹, Theresa Foito, FNP-BC, RN¹, Elizabeth Levatino, BSN, RN¹, Heather Martin, DNP, RN, PNP-BC¹, Julie A. Michels, MSN, RN-BC¹, Jan Schriefer, DrPH, MSN, MBA¹, Kori Wolcott, BSN, RN², Derek Wakeman, MD¹, Luis I. Ruffolo, MD¹

¹University of Rochester Medical Center, Rochester, NY, USA, ²Rochester Regional Health, Rochester, NY, USA

Purpose: Pediatric gastrostomy (G) tube insertion is common, though associated with significant healthcare utilization. Early tube dislodgement can result in tract disruption and abdominal sepsis. We aimed to reduce early G tube dislodgements by 25% within 12 months.

Methods: An interdisciplinary quality improvement team of physicians, advanced practice providers, nurses, and care coordinators convened to identify key drivers of G tube dislodgement. We implemented 1) a comprehensive care bundle to institute mechanical deterrents to dislodgement 2) G tube best-practice education to in-patient nursing staff and 3) a standardized discharge pathway for care coordinators focusing on family engagement. We abstracted the rate of early G tube dislodgement (dislodgements within 90 days of insertion / cases performed; outcome measure). Ten months of cases after bundle implementation were compared to a 12 month period before implementation. Length of stay (LOS; balancing measure) and bundle compliance (process measure) were tracked. Mean G tube dislodgement rates and LOS were compared with Mann-Whitney U tests with significance set at 0.05.

Results: After care bundle implementation, a 65% reduction in dislodgements per month compared to the year prior was observed (mean dislodgement rate 30% vs. 10%, $p=0.04$; (Figure). This finding was driven by a statistically significant reduction in early dislodgements occurring in the in-patient setting (mean dislodgement rate 12% vs. 2%, $P=0.032$). In the out-patient setting, we observed no significant change in the rate of early dislodgments (mean dislodgment rate 19% vs. 11%, $P=0.35$). Mean length of stay decreased from 11.6 days to 6.4, though this did not reach statistical significance ($p=0.076$).

Conclusion: An interdisciplinary team using quality improvement methodology can significantly improve value (reduced harm, reduced costs) after pediatric gastrostomy tube insertion. Fewer in-patient dislodgements is an encouraging outcome; in the future we will focus on reducing out-patient dislodgements through educational interventions in at-risk populations.



Scientific Session 1: Quality and Safety (continued)

