

## Scientific Session 1: Quality and Safety (continued)

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#### IMPLEMENTATION OF A GASTROSTOMY CARE BUNDLE REDUCES EARLY DISLODGEMENTS

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**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.

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