



Standardizing Perioperative Care for Pediatric Gastrostomy Tube Placement: Impact on Length of Stay and Hospital Costs

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BACKGROUND

- Gastrostomy tube (G-tube) placement is one of the most common pediatric surgical procedures, but **postoperative feeding and discharge practices vary widely** across institutions¹⁻³
- While prior studies support safety of a shorter time to first feed, the **economic impact** of pathway standardization has not been well-quantified⁴⁻⁷

OBJECTIVES

Evaluate the impact of a multidisciplinary standardized perioperative G-tube pathway on: time to first postoperative feed, postoperative length of stay (LOS), standardized hospital costs, and 30-day complications

METHODS

- Single-institution retrospective cohort study of patients undergoing planned G-tube placement
- Excluded: tube replacement, pre-op hospitalization, planned post-op admission to another service, major concurrent procedure
- Costs inflation-adjusted to 2024 USD⁸

RESULTS

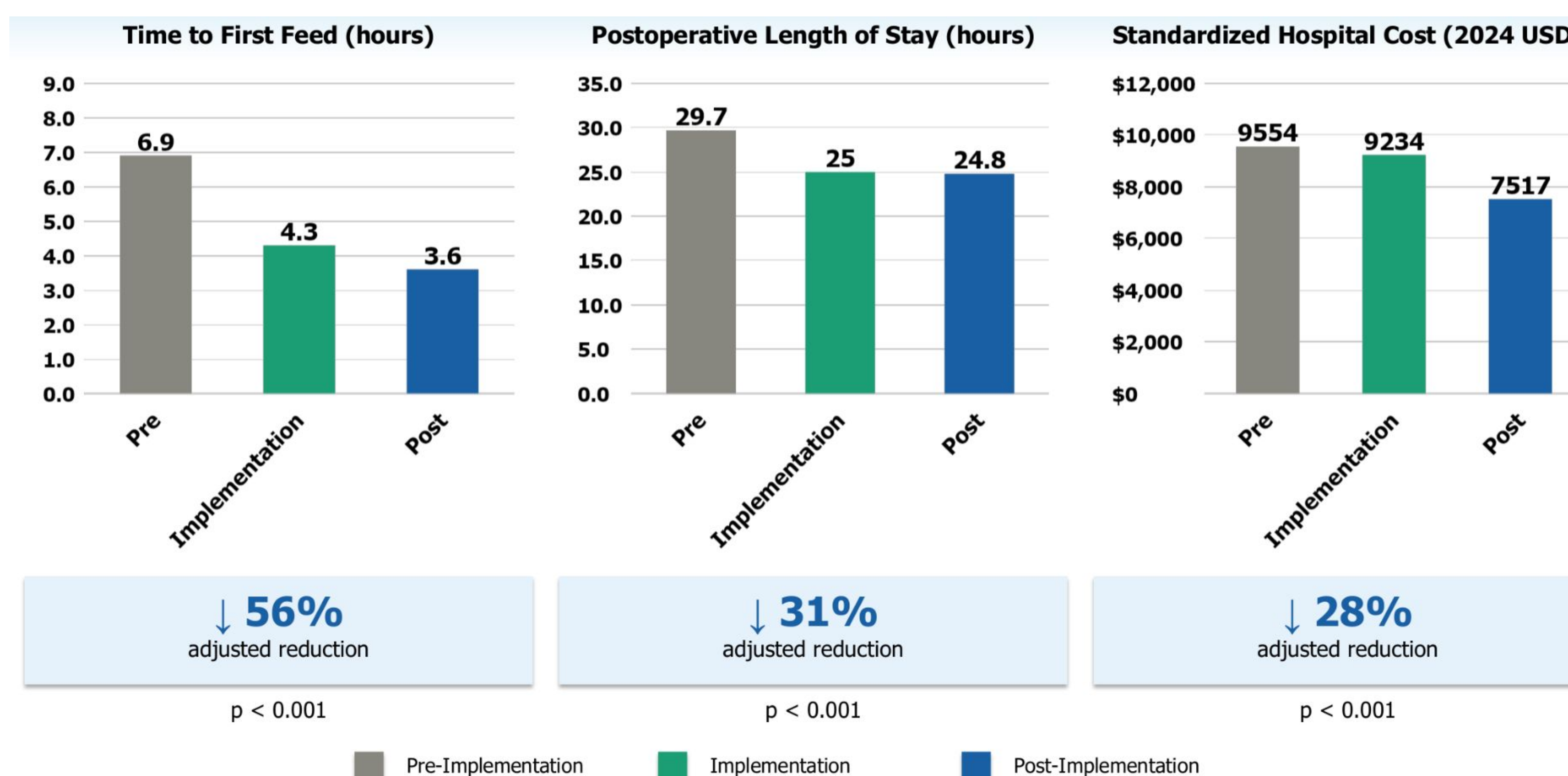
FIGURE 1: Pathway Implementation (n = 343)

Pathway component	Pre-implementation Mar 1, 2019 – Nov 30, 2022	Implementation Dec 1, 2022 – Apr 30, 2024	Post-implementation May 1, 2024 – Jun 30, 2025
	179 patients	96 patients	68 patients
	% adopted	% adopted	% adopted
Laparoscopic technique	91.1%	100%	100%
Caregiver education completed	98.3%	100%	100%
Standardized post-op order set	not introduced	not introduced	86.8%

■ Pre-implementation (n = 179) ■ Implementation (n = 96) ■ Post-implementation (n = 68)

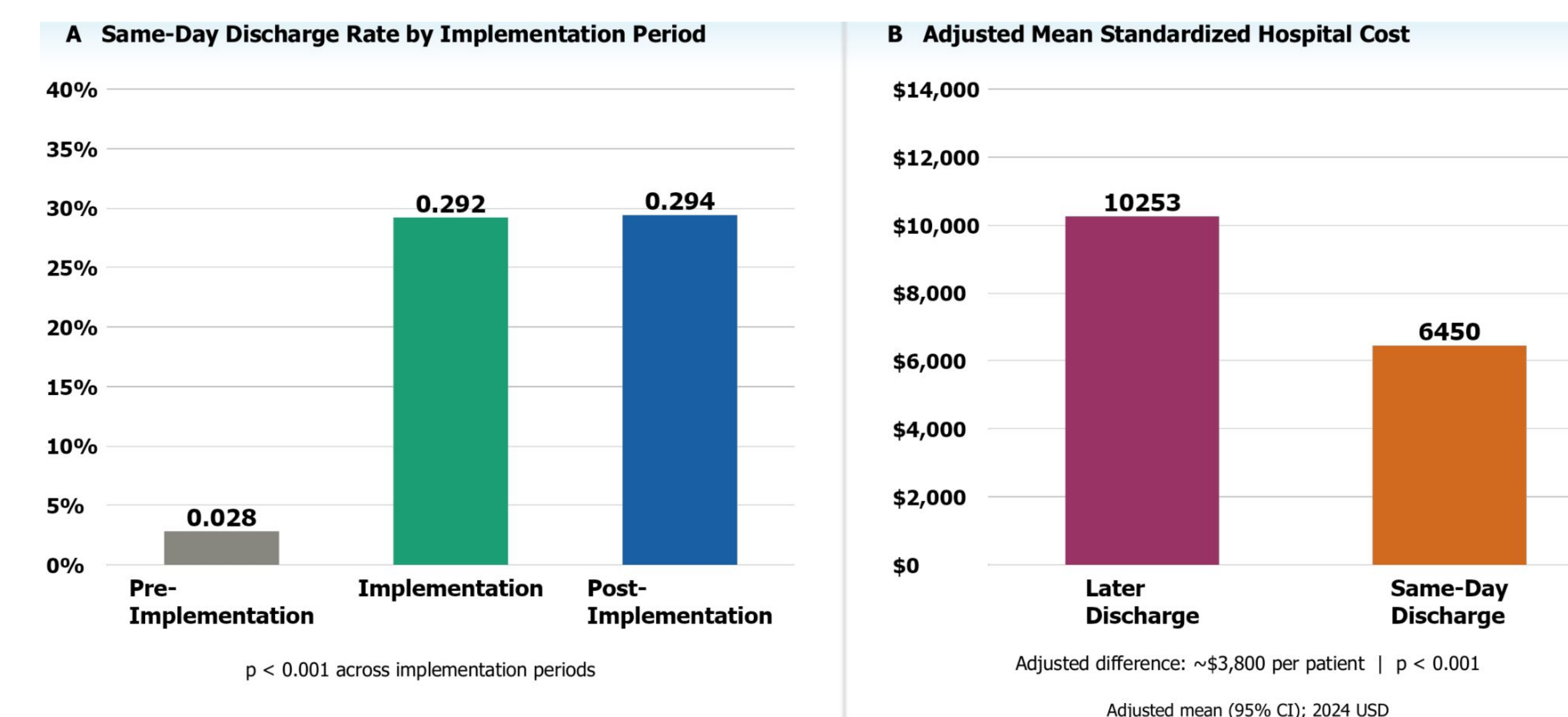
Successful implementation of standardized perioperative care pathway

FIGURE 2: Clinical and Cost Outcomes by Implementation Period



Significant decreases in time to feed, LOS, and hospital costs between pre- and post-implementation

FIGURE 3: Same-Day Discharge Rate and Associated Hospital Cost



Same-day discharge associated with ~\$3800 cost savings per patient
Implementation associated with 10x same-day discharge rate

FIGURE 4: 30-Day Postoperative Complications

Complication	n (%)	n (%)	n (%)	p-value
Any complication	14 (7.8%)	7 (7.3%)	2 (2.9%)	0.38
Related readmission	2 (1.1%)	1 (1.0%)	0 (0.0%)	0.69
Related ED visit	12 (6.7%)	6 (6.3%)	3 (4.4%)	0.80
Infection or leak	2 (1.1%)	0 (0.0%)	0 (0.0%)	0.40
Reoperation	2 (1.1%)	0 (0.0%)	0 (0.0%)	0.40
G-tube dislodgement or malposition	4 (2.2%)	4 (4.2%)	1 (1.5%)	0.51

No increase in 30-day post-op complications associated with implementation

CONCLUSIONS

Standardized G-tube care pathway was associated with:

- Shorter time to first feed
- Shorter postoperative LOS
- Increased same-day discharge
- Lower adjusted hospital costs
- No increase in 30-day complications

Structured perioperative G-tube pathways can improve efficiency and reduce resource utilization without compromising safety.

Limitations:

- Single-institution retrospective design; restricted to uncomplicated G-tube patients; patient/family-reported outcomes not assessed; costs reflect index hospitalization only

REFERENCES



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