Standardizing Intravenous Fluid Protocols in Outpatient Clinics: A Quality Improvement Initiative in Metabolic and Bariatric Surgery

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INTRODUCTION

- Dehydration is a common issue after metabolic and bariatric surgery (MBS)
- Programs use outpatient intravenous fluid (IVF) infusions to prevent emergency department (ED) visits and readmissions

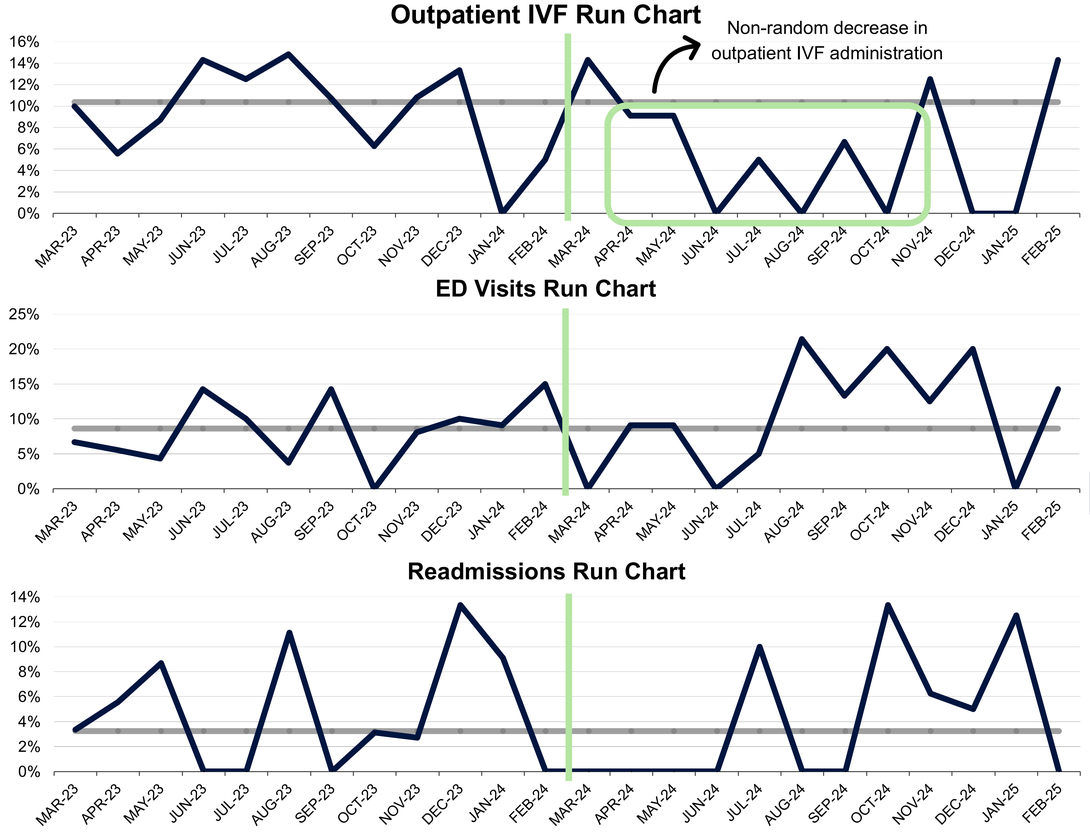
Specific Aim: to increase the rate of outpatient IVF administration for MBS patients from a baseline of 10% by implementing a standardized protocol that incorporated patient-reported fluid intake

Hypothesis: this intervention would have a secondary effect by decreasing ED visits and hospital readmissions

METHODS

- **Screening:** Standardized postoperative visit template which included screening for fluid intake were used for patients within 30 days of MBS
  - Intake was categorized as <48, 48-64, and >64 oz/day
- **Intervention:** Patients reporting intake <48 oz per day were offered outpatient IVF
- **Outcome Measures:** 30-day ED visits and readmissions
- Data were tracked for 12 months before and after the intervention using a run chart to assess the impact

Figure 1. Monthly Percentage of Patients Experiencing the Outcome of Interest with the Green Line Denoting the Timing of Protocol Implementation and the Gray Line Denoting the Pre-intervention Median



RESULTS

- Post-intervention, 87.6% (155/177) of eligible patients received the standardized postoperative screening
- 12 patients were identified with intake <48 oz per day and were offered IVF with 83.3% (10/12) accepting treatment
- At baseline, 10% of patients received outpatient IVF which decreased to 6% after implementing standardized screening with a shift in our run chart
- While ED visits remained stable, the most common pre-intervention reasons included oral intolerance and abdominal pain whereas post-intervention reasons included respiratory infections and abdominal pain
- Readmissions remained stable with oral intolerance the most common reason both pre- and post-intervention

CONCLUSIONS

- Surprisingly, implementing a standardized threshold decreased outpatient IVF use due to a shared understanding of IVF indications
- Screening may have fostered increased education regarding oral intake accounting for the decreased need for outpatient IVF
- The persistence of ED visits and readmissions highlights the complex nature of healthcare utilization after MBS