

Implementing Reduced Fasting Preoperative Electronic Discharge Education in Elective Surgery

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Problem Statement

- Prolonged fasting (PF) can lead to dehydration and hypoglycemia
- Reduced fasting (RF) correlates with postoperative comfort, reduction in insulin resistance, and a lower stress response
- Enhanced Recovery After Surgery (ERAS) provides preoperative instructions of clear liquids and carbohydrate drink 2 hours prior to surgery
- Current practice at the preoperative center does not regularly give RF instructions

At this preoperative center, 94% of patients are fasting greater than 8 hours and 6% fasting less than 4 hours

Purpose of Project & Goals

The purpose of this quality improvement project is to embed ERAS preoperative interventions into the discharge education and to assess fasting times.

Process goal: 50% of patients will receive RF instructions

Outcome goal: Fasting times will reduce to less than 4 hours

Methods

Setting: Nurse Practitioner-led preoperative center at a large urban academic medical center

Population: Elective surgical patients > 18 years of age

Intervention: Pre-formatted instructions integrated into the electronic health record (EHR)

- Two options: “reduced fast” or “prolong fast”
- Includes exclusionary reminders based on the American Society of Anesthesiologist guidelines

Exclusions

Diagnosed or Symptomatic Gastroparesis

Prior Gastric Surgery

Esophageal Disorders

Gastrointestinal Obstruction

Pregnancy

Outcome Measures:

- RF instructions compared to weekly census
- Mean Fasting time weekly

Strategies:

- Educational handout
- Weekly unit rounds
- Weekly data dissemination
- Food reward incentive after 100 RF instructions given

Results

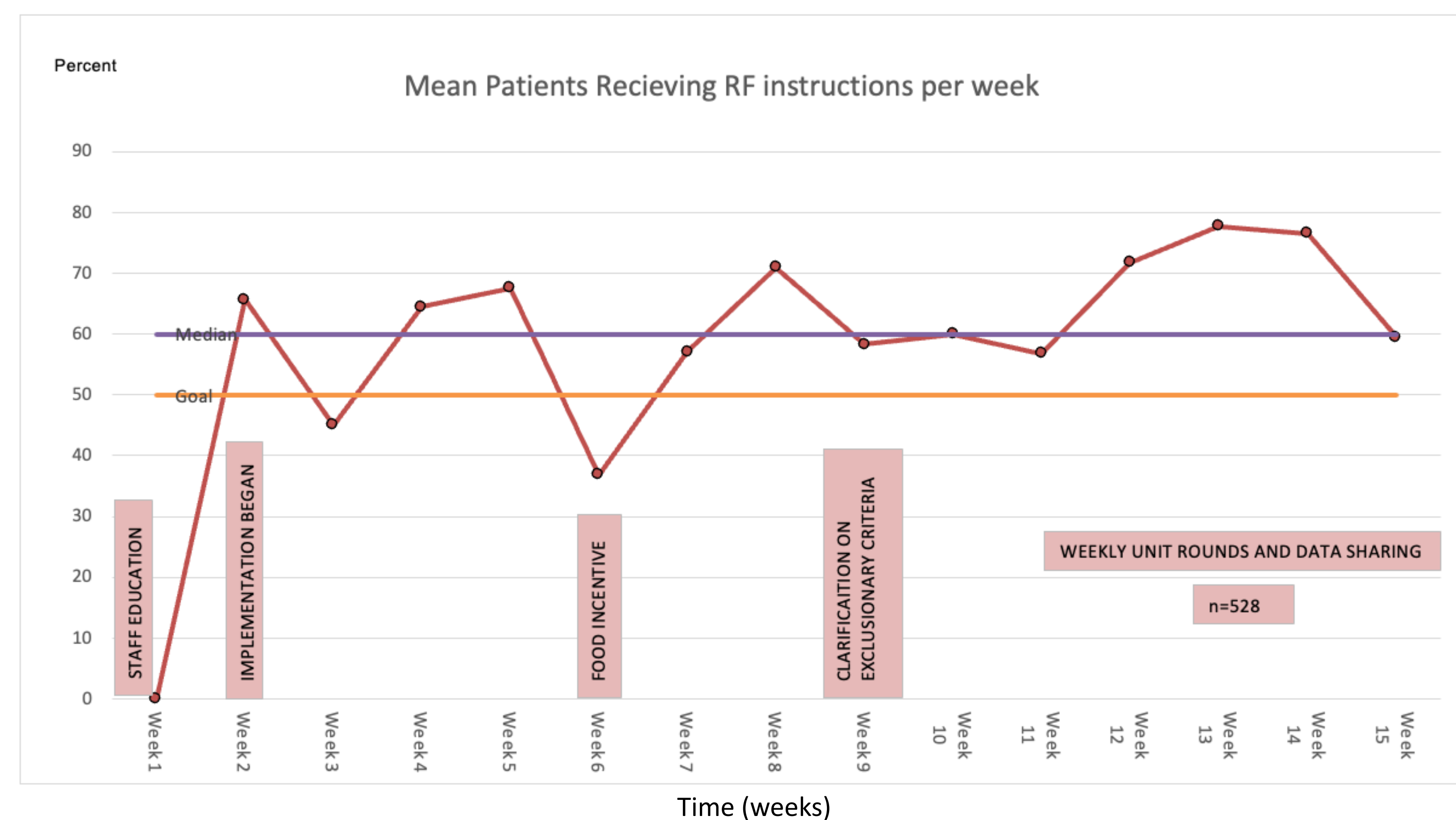


Figure 1: Run chart of mean RF instructions given per week

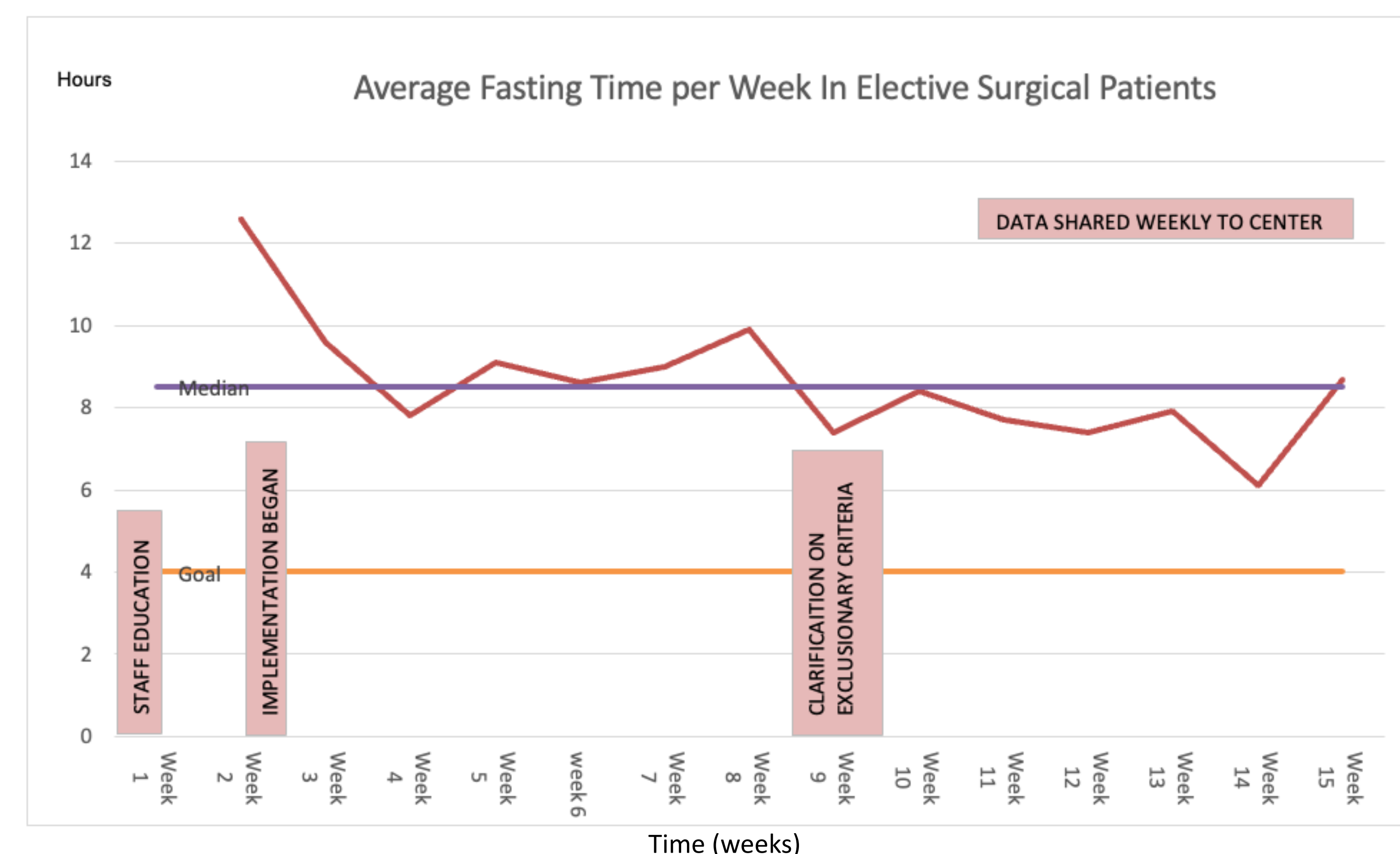


Figure 2: Run chart of average fasting times per week

- **528 patients** were impacted
- **335 out of 528 patients** were given RF instructions about **63%** of patients
- **3 patients** did not receive instructions due to technological malfunction the first week and patient refusal
- Fasting times decreased from **12.6 hours to 8.7 hours**
- Shortest average fasting time was **6.1 hours**

Discussion

Pre-formatted instruction options led to more patients receiving RF instructions

- Goal of 50% of patients receiving RF instructions was accomplished with 63% of patients receiving RF instructions

Fasting times decreased after implementation of the pre-formatted instruction options

- The goal of average fasting times less than 4 hours was not achieved due to multiple barriers including patient compliance and miscommunications

Limitations:

- Carbohydrate drink not supplied in first 2 weeks
- Variation in documentation of fasting times
- Clarifications of exclusionary criteria

Conclusions

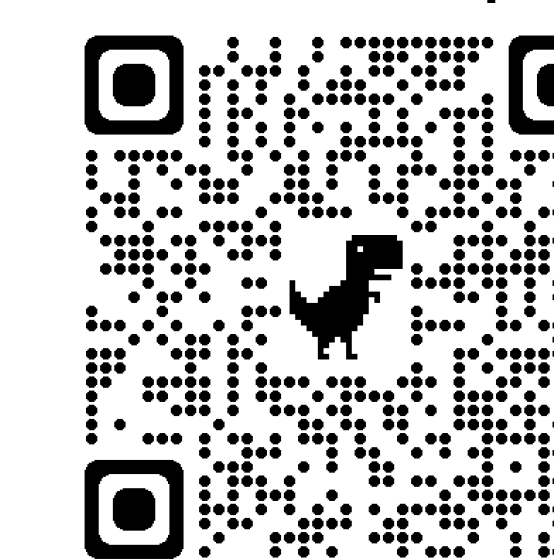
- The pre-formatted instructions was successfully integrated into the NPs workflow and led to increased RF instructions
- Verbal and written RF instructions led to a decrease in average fasting times

Sustainability and Next Steps:

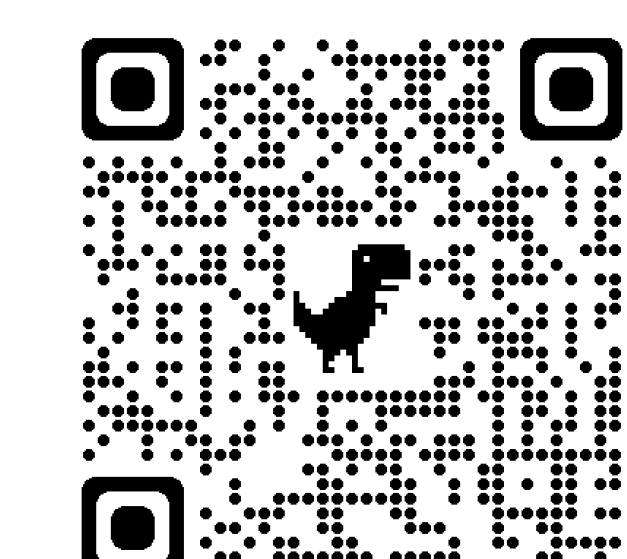
- Continued integration of education into EHR
- On site ERAS team to data collect
- ERAS team creating a hospital-wide initiative
- Inclusion of nurses and surgical services

References

Scan QR codes for ERAS preoperative discharge education and project references



Discharge Education



References

Acknowledgments

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