

CLINICAL QUESTION

"In pediatric patients undergoing elective surgical procedures in the ambulatory care setting, how does the implementation of an evidence-based standard-language fasting guideline affect clear liquid fasting times and time required for IV access?"

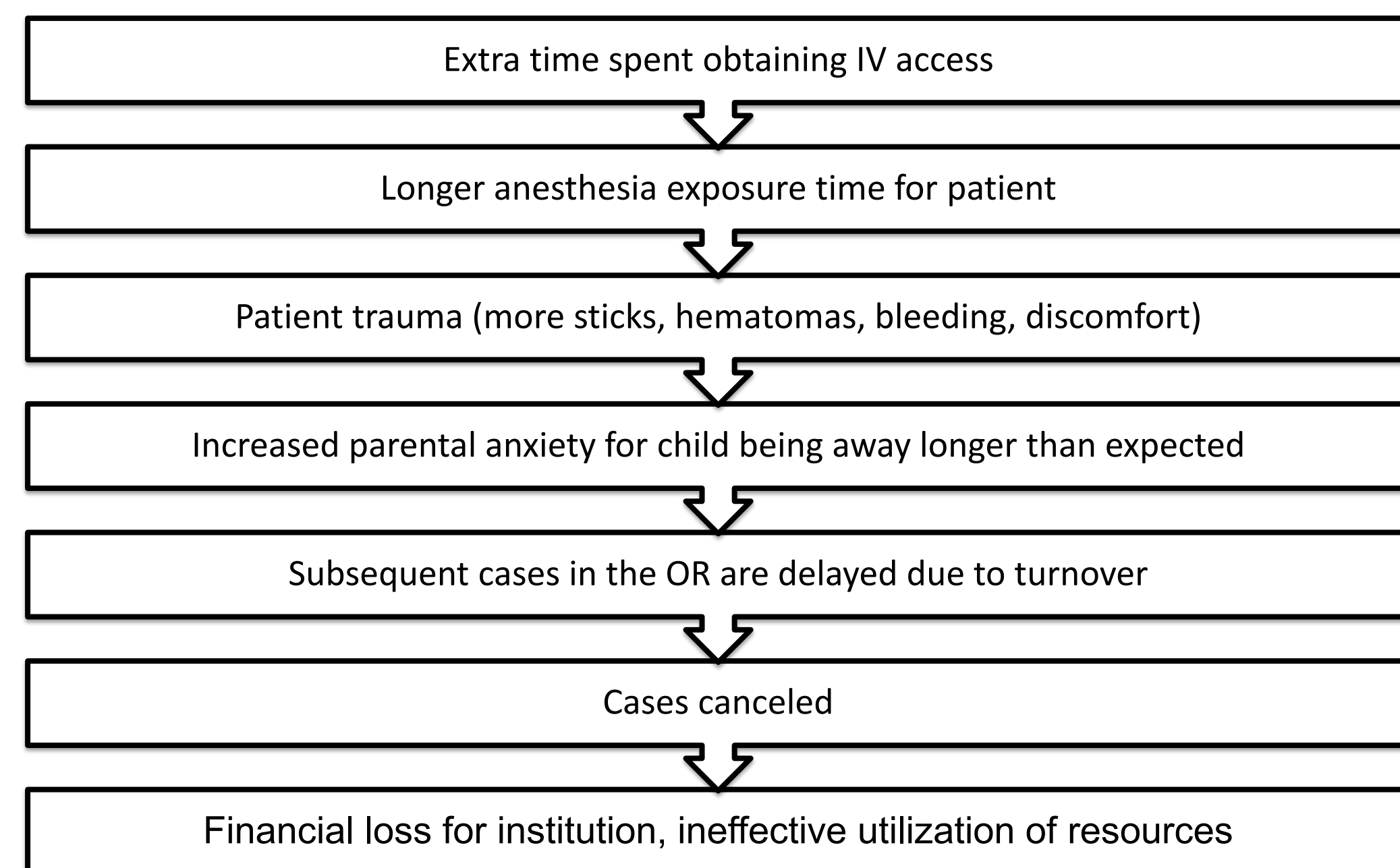
Introduction

- Preoperative fasting guidelines for children historically delineate timeframes relative to solids, breastmilk, and clear liquids, utilizing the "6/4/2" hour fasting rule.
- Evidence shows that children fast for longer than recommended, leading to intraoperative complications and delays in post-operative recovery**

Background & Significance

- Fear of pulmonary aspiration of gastric contents during sedation or anesthesia has been the primary safety concern for shortening clear liquid fasting times.
- Literature demonstrates that **aspiration is not an actual clinical concern**.
- The American Society of Anesthesiologists and the European Society for Pediatric Anesthesiology and Intensive Care currently recommend: **the reduction of clear liquid fasting timeframes to between 1 to 2-hours prior to induction in otherwise healthy pediatric patients.**

Dehydration Problem: The Domino Effect



Methods

"Be a Hydration Hero" Campaign

- The project was implemented over an 8-week pilot period as a quality improvement initiative at the K. Hovnanian Children's Hospital at Jersey Shore University Medical Center in Neptune, New Jersey, in the Ambulatory Surgical Center (ASC).
- An evidence-based, standard language infographic that reinforces and encourages a 2-hour clear liquid fasting time in the pediatric was developed. Staff were educated in both the perioperative and pre-operative surgical settings.



Preparing your child for surgery or a procedure can be stressful, and we want to make it as smooth as possible. This guide provides clear and concise information about eating and drinking restrictions before your baby, child, or teen's upcoming procedure. Following these guidelines is crucial for their safety and the success of the procedure. Please read this document carefully and contact us if you have any questions.

WHY BEING A HYDRATION HERO MATTERS!

Great hydration before surgery means great outcomes during and after surgery. If your child is hydrated, it will be much easier for the surgical team to get IV access, and make the pre and post operative transition times much smoother! We encourage you to wake your child and offer them clear liquids as instructed above on the day of surgery.



FASTING GUIDELINES BY AGE

If your child is 6 months old or LESS	If your child is 6 months - 1 year old	If your child is greater than 1 year old
No solid food after midnight the night before surgery	No solid food after midnight the night before surgery	No solid food after midnight the night before surgery
Stop formula feeds 6 hours prior to arrival time	Stop formula feeds 6 hours prior to arrival time	
Stop breastmilk feeds 4 hours prior to arrival time	Stop breastmilk feeds 4 hours prior to arrival time	
Give clear liquids up to 2 hours prior to arrival time	Give clear liquids up to 2 hours prior to arrival time	Give clear liquids up to 2 hours prior to arrival time

HYDRATION GUIDELINES BY AGE

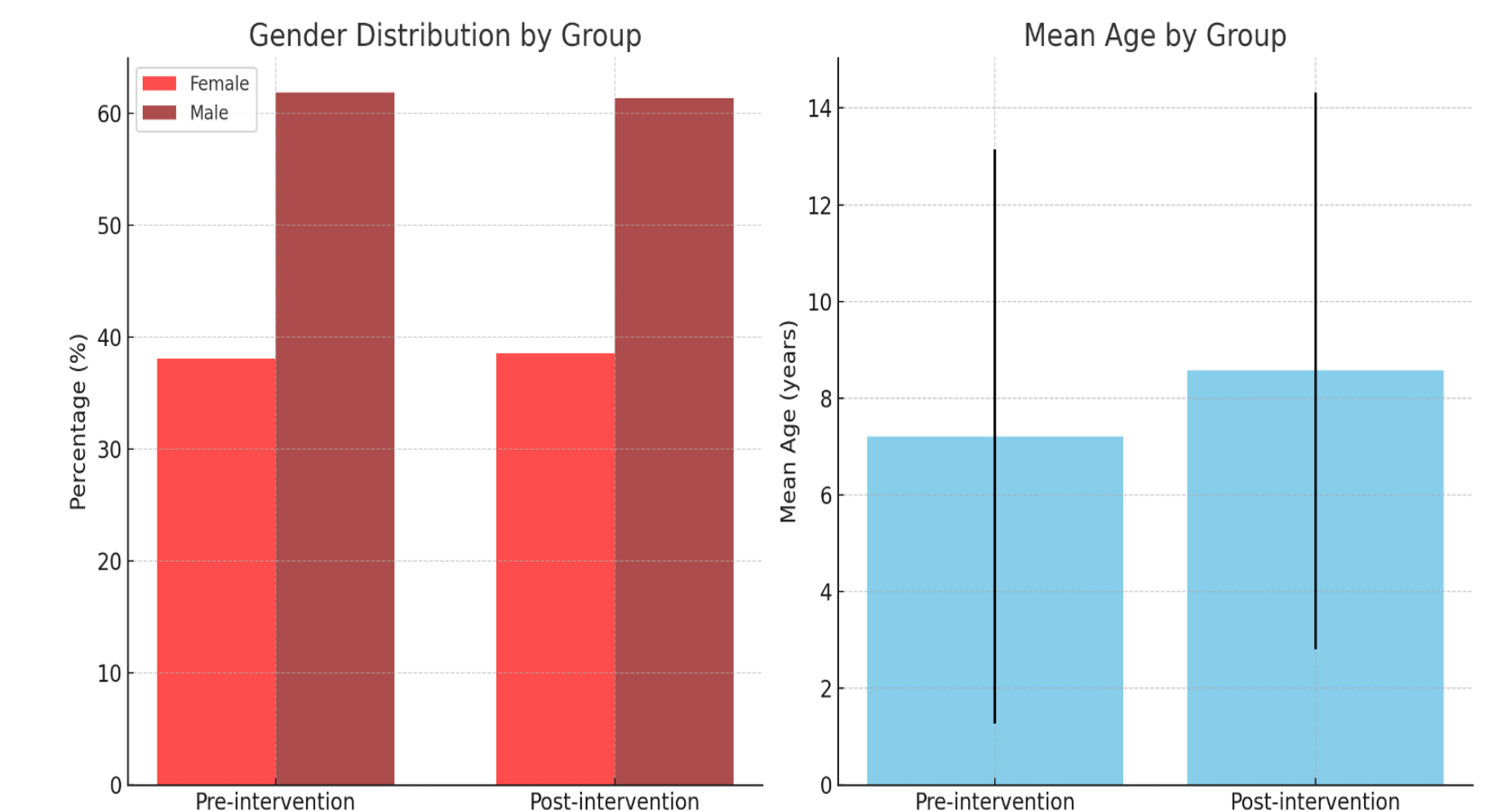
GIVE UP TO 2 HOURS PRIOR TO YOUR SCHEDULED ARRIVAL TIME		
If your child is 6 months old or LESS	If your child is 6 months - 1 year old	If your child is greater than 1 year old
Give 2-4 oz of water or Pedialyte (60-120 mL)	Give 4-6 oz of water or Pedialyte (120-180 mL)	Give 6-8 oz of water or Pedialyte (180-240 mL)

KEY REMINDERS

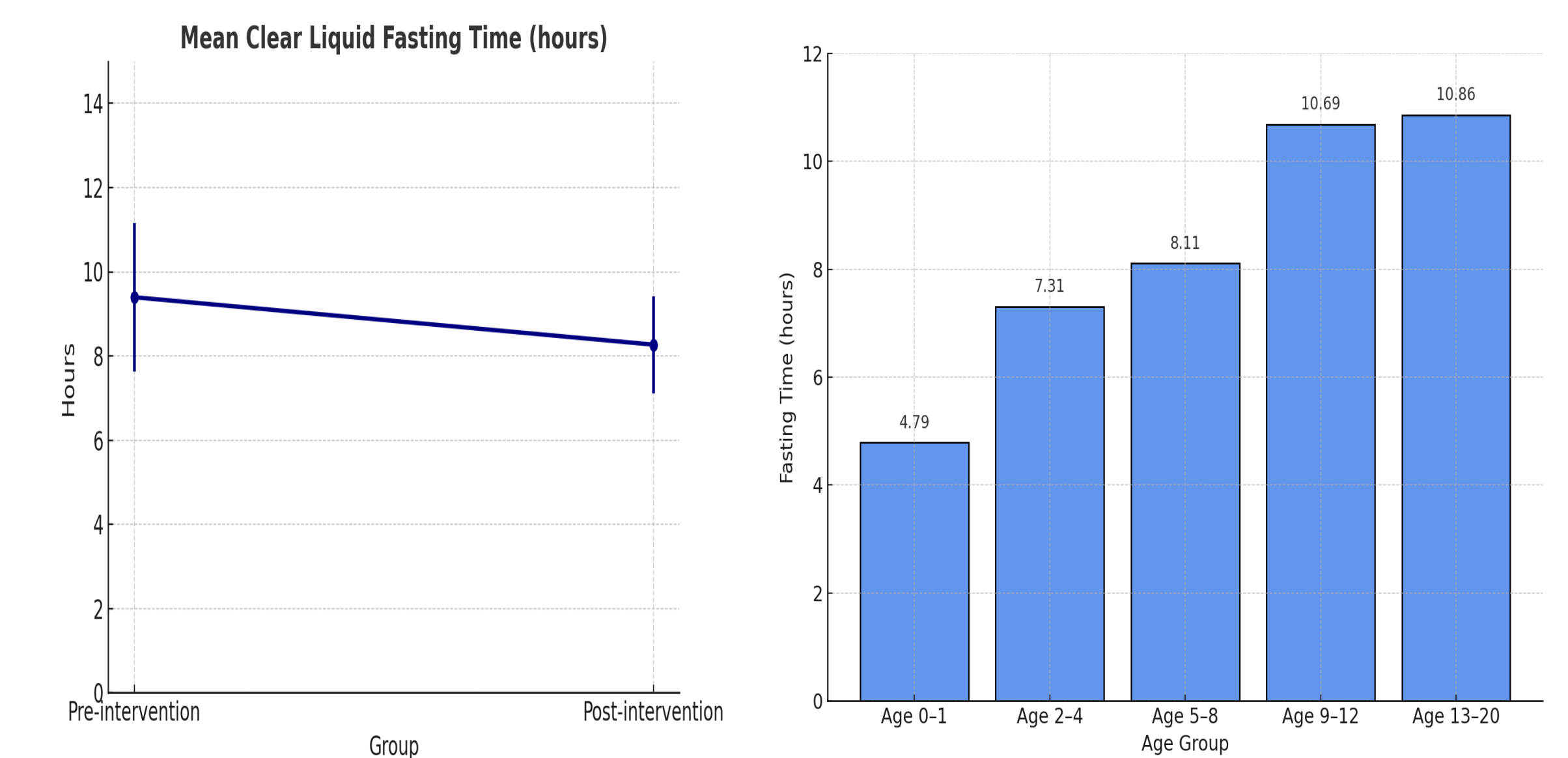
- All solid foods even include candy or gum
- Examples of clear liquids include water, clear juice drinks with no pulp, popsicles, and pedialyte

Results

- Data was collected on a total of 21 patients pre-intervention ($n = 21$) and 44 patients post-intervention ($n = 44$).
- Patients in the post-intervention group **fasted for approximately one hour less** compared to those in the pre-intervention group, although the difference was not statistically significant ($t(63) = 1.11$, $p = .270$). There was no difference observed in IV start times.



Younger children had the shortest mean fasting times, whereas older children and adolescents (ages 9–12 and 13–20) had the longest mean fasting; $p < .001$.



Project Aim & Objectives

The aim of the project was to implement an evidence-based standard language guideline to decrease clear liquid fasting times in the pediatric ambulatory surgical population to improve perioperative/postoperative patient outcomes.

SMART Objectives

- Decrease overall clear liquid fasting times in the pediatric ambulatory surgical population.
- Decrease time required to gain IV access in the perioperative setting.

References & Contact



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Resources



Full Patient Educational Handouts available in English and Spanish

Discussion & Recommendations

- Given **no NPO violations or aspiration events were observed**, broad adoption of these guidelines should be encouraged to enhance both intraoperative and postoperative outcomes.
- Compliance with guidelines could be improved with further decrease in fasting times by incorporating into the EHR and pre-operative text messaging instructions the night before surgery.
- Future implications include adoption of these guidelines system wide through a pediatric enhanced recovery after surgery (ERAS) protocol.