9-11-2023

Pediatric Preoperative Fasting Guidelines Update and Education: A Quality Improvement Project

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Pediatric Preoperative Fasting Guidelines Update and Education: A Quality Improvement Project

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A DNP project submitted in partial fulfillment of the requirements for the degree of

Doctor of Nursing Practice

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Approval Page

This is to certify that the DNP Project Final Report by Brooklyn Mickolyzck BSN, RN

has been approved by the DNP Project Team on September 11, 2023

for the Doctor of Nursing Practice degree

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Acknowledgements

I would like to acknowledge and thank my mom and dad, and husband, Thomas, for their unconditional love, encouragement, and unwavering support in making this all possible. To my daughters, Mila and Alessia, you both made what felt impossible, be possible and have truly pushed me to accomplish my dreams. I want to thank my in-laws for picking up the pieces when we needed them most.

I want to thank Dr. Dorothea Esposito, DNP, MSN/ed, APRN, FNP-BC, my DNP faculty advisor for her continued support, encouragement, and guidance. Her expertise, passion, and knowledge has been instrumental in my education and has given me such inspiration for my future as a provider. Lastly, I would like to thank the surgery center faculty and staff for allowing me to implement this project with their utmost support along the way.

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Abstract

Significance and Background:

Longer preprocedural fasting times in the pediatric population causes distress among children and their families and potentiates postoperative complications. Allowing children to consume clear liquids up to two hours prior to surgery improves satisfaction and decreases overall fasting durations. Current guidelines from the American Society of Anesthesiologists (ASA) allow preoperative consumption of clear liquids up to two hours prior to arrival time. However, preoperative nursing staff at an ambulatory surgery center in Northern, CT are educating patients parents and guardians to keep their children from having "nothing to eat or drink after midnight".

Purpose: Develop a standardized clear liquid fasting protocol in the surgery center to shorten the preoperative fasting duration of pediatric patients and increase patient and family satisfaction.

Methods: Plan-Do-Study-Act. *Plan:* A standardized policy was developed at the surgery center to utilize when providing preoperative education. An educational session was developed to provide nursing staff. *Do:* An informational session was provided to key stakeholders. *Study:* Data was collected on impact of preoperative fasting instructions in relation to fasting durations and patient and family satisfaction. *Act:* Presentation of data to key stakeholders.

Outcome: Over the implementation period between September 2023 and December 2023, there were a total of 205 surveys completed (83%). Post-implementation patient satisfaction surveys display 67% of patients followed new fasting guidelines and 33% followed previous guidelines instructing nothing by mouth (NPO) after midnight. Of the patients that

consumed clear liquids 2 hours prior to arrival, 61% of parents/guardians strongly agreed that the patient was more cooperative preoperatively.

Discussion: The implementation of preoperative fasting instructions by nursing staff increased patient cooperation and family satisfaction while reducing preoperative fasting durations.

Keywords: pediatric preoperative fasting guidelines, standard preoperative fasting guidelines, ambulatory surgery, fasting duration, pediatric surgery, anesthesia, and practice guidelines.

Problem Identification and Evidence Review

Description of the Problem

Unnecessarily long preprocedural fasting leads to distress amongst children and their families and has been shown to potentiate postoperative complications (Isserman et al., 2019). Consuming clear liquids up to two hours prior to a patient's procedure decreases patients overall fasting duration (Nye et al., 2019). Shorter fasting duration in the pediatric population reduces both patient and family distress, minimizes hunger complaints, improves patient comfort and satisfaction, and attenuates hemodynamic instability throughout the perioperative period (Fawcett & Thomas, 2019).

Description of the Local Problem

A surgery center in Northern, CT has fasting guidelines in place that nurses do not often utilize when offering preoperative instructions to patients and family members. Current guidelines allow for clear liquids up to two hours prior to arrival time, however preoperative nursing staff are educating patients parents or guardians to keep their children from having "nothing to eat or drink after midnight". This offers an opportunity to standardize fasting guidelines for pediatric patients with clear liquids preoperatively to reduce fasting duration. Children often present to the surgery center uncooperative and difficult for both parents and staff. Many clinicians continue to believe that the traditional pre-approach of ''nothing by mouth after midnight" is easier for patients and families to understand and follow, and it will lead to fewer fasting breaches and surgical delays (Costello, 2016). However, providing patients with education stating "nothing by mouth after midnight" is associated with excessive fasting times resulting in pediatric patients fasting up to 6.5 times longer than if the ASA guidelines had been followed (Costello, 2016). A clear liquid diet up to two hours prior the morning of surgery could

reduce preoperative fasting times among pediatric inpatients and increase patient comfortability (Nye et al., 2019).

Organizational Priority

This project is supported by the Administrator, Clinical Director, Anesthesiologist, and Medical Director of a surgery center in Northern, CT. This project will be used as one of the annual quality improvement projects completed at each Tenet Health Ambulatory Surgery Centers.

Clinical Question

In pediatric ambulatory surgery patients (P), does providing education on the importance of clear fluids until 2 hours prior to surgery via teach-back method (I) compared to the standard 8-hour fasting guidelines (C) affect preoperative fasting duration (O)?

Evidence Search

External Evidence. The databases searched include CINAHL Complete, Medline with full text, PubMed, and TRIP. Keywords searched in these databases include pediatric preoperative fasting guidelines, standard preoperative fasting guidelines, ambulatory surgery, fasting duration, pediatric surgery, anesthesia, and practice guidelines. The evidence searches throughout these databases were limited to articles published between 2016-2023 of English language, full-text, included an abstract, and were peer-reviewed. The Rapid Critical Appraisal Tool by Melynk & Fineout-Overholt (2019) was used to assess the value and significance of each article (see Appendix C).

Internal Evidence. Nurses at a surgery center in Northern, CT were asked how often they provide patients with the current fasting guidelines for preoperative education. Many of the nurses admit to only providing patients with the current fasting guidelines if the parent

specifically questions them regarding drinking water prior to surgery. Otherwise, the nursing staff tells the parent or guardian that they are to have nothing to eat or drink after midnight. With the assessment of nurses and preoperative fasting education, there is a need to implement best practices for pediatric preoperative fasting.

Evidence Appraisal Summary, Synthesis, and Recommendations

Evidence suggests that consuming clear liquids up to two hours prior to a patient's procedure decreases patients overall fasting duration (Nye et al., 2019). Pediatric patients have been subject to unnecessarily long preprocedural fasting leading to distress amongst children and their families and have been shown to potentiate postoperative complications including postoperative nausea and vomiting (Fawcett & Thomas, 2019). Shorter fasting duration in the pediatric population reduces both patient and family distress, minimizes hunger complaints, improves patient comfort and satisfaction, and attenuates hemodynamic instability throughout the perioperative period (Rai & Toms). Adequate education and awareness to improve their knowledge was associated with increased compliance for optimal fasting (Kundal et al., 2022).

Project Plan

Project Goals

Using SMART (specific, measurable, achievable, realistic/relevant, timely) goals allows organizations to set goals that are practical and gives team members the motivation to achieve the goals (Mirabella et al., 2022). The creation of SMART goals allows a larger objective, such as patient satisfaction, to be achieved when divided into smaller goals that are easily attainable (Mirabella et al., 2022). Implementing the SMART methodology into this practice change helps to achieve overall improvement in patient and family satisfaction.

1. Develop a standardized clear liquid fasting protocol in the surgery center from September to December 2023.
2. Shorten the preoperative fasting duration of pediatric patients within three months.
3. Increase patient and family satisfaction within three months duration.

Framework

The Model for Healthcare Improvement is the framework that will be utilized for the implementation and evaluation phase of this project. The Model for Improvement is a rather simple yet powerful tool for means of accelerating an intended improvement (Institute for Healthcare Improvement [IHI], 2023). The Model consists of two parts beginning with three fundamental questions including: 'What are we trying to accomplish?', 'How will we know that a change is an improvement?', and 'What change can we make that will result in improvement?'; presumed by the Plan-Do-Study-Act (PDSA) cycle which guides the test of a change to establish whether or not the change is an improvement (IHI, 2023).

Context

The surgery center is an ambulatory surgery center located in Northern, CT. The project setting is the preoperative nursing area. The patient population is primarily pediatric otolaryngology (ENT). Participants of the proposed project include 6 staff nurses and 3 anesthesiologists. The surgery center where the project is being implemented utilizes paper documentation.

Project Team and Roles

Table 1. displays the project team members and their roles.

Table 1. Project Team and their Roles

Person	Role

Brooklyn Mickolyzck DNP student	Project Manager
Primary Project Mentor	Project review for compliance with health system standards
Anesthesiologist	Give expert opinion and guidance on anesthesia, guidelines, and the practice change
Administrator	Assist with dissemination of project through poster board presentation
Dorothea Esposito	DNP project faculty advisor, EBP and QI expert

Key Stakeholders, Staff, and Buy-in

Key stakeholders identified for this project include the medical director, administrator, clinical director, anesthesia, and patients and families. Staff that are considered essential to the success of this project are bedside nursing staff who will be performing the policy and preoperative education. Focus will be on reduction in the length of time pediatric patients fast prior to surgery and improvement in patient and family satisfaction to get staff buy-in. The clinical director and the anesthesiologists have expressed interest as well as commitment to execute the success of the DNP project which will be utilized to gain additional support and buy-in from staff.

Description of the Practice Change

The Model for Healthcare Improvement is guiding this practice change project. In this section, the practice change plan for each step of the PDSA is described.

Plan Phase

This DNP student will meet with the administrator, clinical director, and anesthesia to review the evidence, and the recommendations, and develop a standardized policy to be used when providing preoperative education. This DNP student will review and revise current fasting policy. The plan phase will address the first goal which satisfies the SMART criteria as both specific, achievable, and realistic.

Do Phase

This phase will start with a brief but imperative informational and educational session for the stakeholders regarding the significance of reducing fasting durations in the pediatric population. During this educational session, this DNP student will review with nursing staff the teach-back method to be utilized when providing instruction during the preoperative phone calls. Concluding the educational session, measuring the staff's knowledge, and understanding the importance will confirm whether the proposed practice change will be implemented successfully. This DNP student will utilize a pamphlet to review key indicators for proposed policy change, in addition to benefits and barriers. The goal in this phase is to provide education to ¾ of the key stakeholders prior to the implementation of the proposed practice change. Emails with the pamphlet PDF attached and paper pamphlet handouts will be provided to staff that are not able to attend the educational session. This DNP student along with two full-time nurse champions will be assigned to provide support during preoperative phone calls to monitor adherence to initiating the proposed practice change. Providing educational sessions, emails, and pamphlets to staff members, in addition to utilizing two nurse champions provides specific and realistic goals that are achievable over a goal-oriented timeframe attesting to the SMART methodology.

Study Phase

The DNP student will review charts weekly to review fasting durations and compliance from pediatric surgery days. The DNP student, nurse champions, and the Clinical Director will follow adherence to following the policy change; this will be monitored weekly and then biweekly until end of the pilot. The DNP student will provide 1:1 education to staff that are found to be non-compliant with providing preoperative instruction utilizing the teach-back method and following the new policy within 1 week. A brief weekly staff meeting will be held to

receive feedback from staff regarding the new policy with positive and constructive feedback to the DNP student. In the instance of negative feedback from staff members I plan to provide education using evidence-based practice to explain the benefits of implementing the practice change. I intend to review with staff the evidence on the significance of reducing preoperative fasting duration such as hemodynamic stability during the operative and postoperative period, as well as patient and family satisfaction to create buy in. The data collected will be organized into a run chart to display results. The goal is to decrease the preoperative fasting duration of pediatric patients to 4 hours and increase patient and family satisfaction by 50% within three months. The DNP student will review collected data with the Administrator, Clinical Director/project mentor, and anesthesia. The study phase addresses SMART specific, attainable, realistic goals to allow implementation of the quality improvement project.

Act Phase

The DNP student will utilize data to revise the policy and process based on the first PDSA cycle. The nursing staff will be evaluated by this DNP student and the nurse champions during the first go-live week to assess compliance and correctness on the preoperative education of the fasting guidelines to be able to modify and revise if necessary. The data collected during the act phase offers measurability supporting the SMART criteria.

Evaluation Plan

Goal #1 will be evaluated by completion of updated NPO guidelines/ fasting policy by March 2024. At least 80% of the nurses will receive education on the new policy and process by November 2023. The go-live date for using the new fasting policy will be December 2023.

Goals #2 and #3 will measure success by utilizing a survey provided to parents or guardians. The survey will utilize a Likert scale to measure patient/family satisfaction. During

the preoperative phone call the nursing staff members will have a checklist to complete to confirm the correct teaching via teach-back method was provided to the parent or guardian regarding preoperative fasting guidelines. This DNP student will be present during the first go-live week of the new policy to assess nursing adherence and accuracy when providing education during the preoperative phone calls. Moving forward, the nurse champions will continue to validate the accuracy of education provided regarding preoperative fasting and compliance with the new standardized guidelines. The survey (Appendix F) will be provided to the parent or guardian in the waiting room or during preoperative admission to review fasting duration, patient satisfaction, and comfortability with the practice change. The survey results will be presented in a run chart and pareto chart to display data and successes.

Barriers to Implementation

Table to address the potential barriers to implementation and offers strategies to help mitigate said barriers.

Table Two. Barriers to Implementation and Strategies for Mitigation

Barrier	Strategy for Mitigating
Increasing duration of preoperative phone call	Discuss with the nursing staff how to best provide preoperative instruction using the teach-back method to patients' parents or guardians
Staff resistance to change	Provide education using evidence-based practice to explain benefits of implementing practice change
Biases based on current knowledge of preoperative fasting guidelines	Provide education to staff and providers on evidence-based practice changes to address potential/present biases
Patient and family compliance	Provide thorough education via teach-back method and emphasis on the importance and consequences of non-compliance to the preoperative instructions
Lack of standardized use of current policy	Review the evidence on the significance of reducing preoperative fasting duration in pediatric patients (e.g. hemodynamic stability, patient and family satisfaction)

Sustainability with Mitigation Plan

Utilization of standardized preoperative pediatric fasting guidelines supported by the Administrator is a key component to sustainability of the practice change. The use of nurse champions ensures compliance with the preoperative education provided to parents or guardians and use of the teach-back method with the new policy. The nurse champions will continue to measure fasting duration and patient satisfaction with the survey provided. In addition, they can help reeducate staff with the support of the Clinical Director on the importance of adherence during the preoperative phone calls if divergence from the new policy occurs. If the proposed practice change shows success, it will be proposed to other ambulatory surgery centers run by Tenet Health.

Dissemination

For dissemination of this project, the plan is to provide leadership and other key stakeholders with updates on the survey results. A posterboard presentation will be executed for the FNP-DNP program faculty and staff, in addition to other students, and the staff at the surgery center. An abstract of this quality improvement project will be submitted to both a practice and national organization including American Society of Anesthesiologists (ASA).

Timeline

Table three displays the project timeline. Appendix H displays the DNP Project Roadmap with the dates that the DNP project advisor review and approved proposal sections.

Table 3. Project Timeline

Date	Action
May 2023	Meet with Clinical Director and Anesthesia to discuss proposed project topic
June 2023 – August 2023	Prepare primary proposal for presentation for DNP project team
August 2023	DNP project proposal oral and paper presentation

September 2023	Submit exempt application to SHU IRB
	Submission of primary proposal to Clinical Director at the surgery center
September 2023	Provide education to staff until 80% participation
September 2023, October 2023, December 2023	Implementation of proposed practice change
September 2023 through December 2023	Review surveys and adjust PDSA cycle based on feedback and nurse adherence to proposed policy
February 2024	Interpret data collected over three-month period
April 2024	DNP project final oral and paper presentation

Resources/Budget

Table 4 displays the estimated project costs.

Table 4. Estimated Project Costs

Expense	**Cost**	**Budget**
Material		
Educational pamphlets (Updated fasting guidelines, Best practice guidelines, survey)	$29.99	$29.99
Post-implementation surveys	Cardstock 80 sheets @ $4.97 x 5	$24.85
Technology		
PowerPoint Presentation (Microsoft Office- already on computer)	$0.00	$0.00
Paper Charting	$0.00	$0.00
Food		
Pizza Party (post-implementation celebration for all staff)	1 large salad 10 Large Pizzas @ ~$18.00	$40 $180
Total Budgeted cost	$274.84	$274.84

Ethical Review and Project Approvals

This project does not require approval from the second largest university in the Northeast's Institutional Review Board (IRB) because it is considered a quality improvement project. However, this project will be submitted to the University's IRB for approval as a QI

project. Quality improvement methodology is utilized when implementing interventions on a small scale for a short timeframe; the findings are then applied continuously to sustain the improvement (Carter et al., 2021). The tool in Appendix H "Differentiating Quality Improvement and Research Activities Tool" reviews questions to definitively determine if the intended project is a quality improvement project rather than a research project. The approval to implement this project at a surgery center in Northern, CT was granted from the Clinical Director.

Project Implementation

This project was reviewed by the second largest university in the Northeast's IRB and was granted exemption status on September 11, 2023 (Appendix L). Conducting the implementation phase began in September 2023. This DNP student provided surveys to the preoperative nursing staff to give parents or guardians of the pediatric patients to complete. Initially, the patients surveyed ages ranged from 6 months to 17 years old. The minimum age for the survey was adjusted to 2 years old as parents expressed majority non-applicability for clear liquids prior to arrival for patients under the age of 2. The survey questions consisted of inquiring about the last intake of clear liquids; rating the quality and clarity of the fasting instructions provided during the preoperative phone call; assessing cooperativeness and satisfaction by the patient being allowed to consume clear liquids two hours prior to arrival time; rating satisfaction by the parent/guardian with having the ability to offer the child clear liquids up to two hours prior to arrival rather than instructing them nothing to eat or drink after midnight; and evaluating the importance of compliance with instructions provided by staff. For parents/guardians that did not speak or read the English language, a certified medical interpreter was utilized from the language line to review the survey questions and scoring. The survey took

approximately 60 seconds to complete unless interpreting services were utilized. The survey was translated into the Spanish language to allow for easier understanding and more efficiency in survey completion. Surveys were provided to patents/guardians until December 2023 when the implementation phase reached its conclusion.

Barriers Encountered During Implementation

During the implementation phase, several barriers were identified and encountered. The first barrier was that parents/guardians of children under the age of two years old expressed non-applicability to the preoperative fasting instructions as their arrival times were already early and ranged from 0615 to 0730. Eliminating patients under the age of 2 years old limited participants for the project. Another obstacle encountered was due to the parent/guardian language barrier and comprehension of the instructions provided. Staff expressed concern about the language barriers as there seemed to be uncertainty about the level of comprehension on preoperative fasting instructions. Therefore, less surveys from non-English speaking parents/guardians were initially received. Also, pediatric surgery days varied and were not consistent on a weekly basis as one week would have one to two pediatric days and another week would have three. Lastly, one of the nurse champions left the facility for another position during the implementation phase. In addition, a new full-time nurse was hired, as well as two part-time nurses were hired during this period. This DNP student stepped in and communicated with nursing staff to find a replacement full-time nurse champion willing to take the position for the remainder of the project and help support new staff during preoperative phone calls after initial education was provided.

Project Evaluation

Data collection

After initial implementation from September 12, 2023, to December 6, 2023, data was collected to evaluate patient satisfaction and overall fasting duration during this time. Over the course of the quality improvement study, the nurse champions communicated with this DNP student to review and address successes, challenges, and plans to mitigate through barriers faced. There were 248 pediatric patients who underwent surgery over the course of the 3-month implementation process from September 2023 to December 2023 with ages ranging from 2-17 years of age. Each parent/guardian was provided with a survey during the preoperative phase of the admission process to complete and return.

Process Measures

The process measures include introduction of standardized preoperative fasting guidelines and providing faculty and staff with educational sessions to successfully implement preoperative education with emphasis on the teach-back method. The educational sessions provided included key indicators for proposed policy change, in addition to benefits and barriers, and evidence-based practice to explain the benefits of implementing the practice change.

Outcome Measures

Study data was collected and analyzed through Microsoft Excel and Microsoft Word. There was a total of 205 surveys completed and returned. Outcome measures included the number of surveys collected in comparison to those distributed. In addition, post-education patient satisfaction survey results were evaluated to assess the effectiveness of preoperative education, specifically fasting guidelines.

Goals and Achievements

1. Develop a standardized clear liquid fasting protocol in the surgery center from September to December 2023.

2. Shorten the preoperative fasting duration of pediatric patients within three months.
3. Increase patient and family satisfaction within three months duration.

Goal number 1 was achieved with implementation of a standardized fasting protocol that was provided and utilized while performing preoperative phone calls at a surgery center in Northern, CT by nursing staff from September 2023 to December 2023. Of the 248 pediatric patients seen during the three-month implementation period, 205 surveys were completed and returned (82.66%) see (Figure 1). In reviewing goal number 2, (66.83%) of the pediatric patients consumed clear liquids 2 hours prior to their arrival time see (Figure 2). Lastly, assessing goal number 3, (73.66%) of parents and guardians of the patients strongly agreed that their child was more cooperative and satisfied having the ability to consume clear liquids 2 hours prior to their arrival time see (Figure 3).

Figure 1. *Patient Satisfaction Survey Completion*

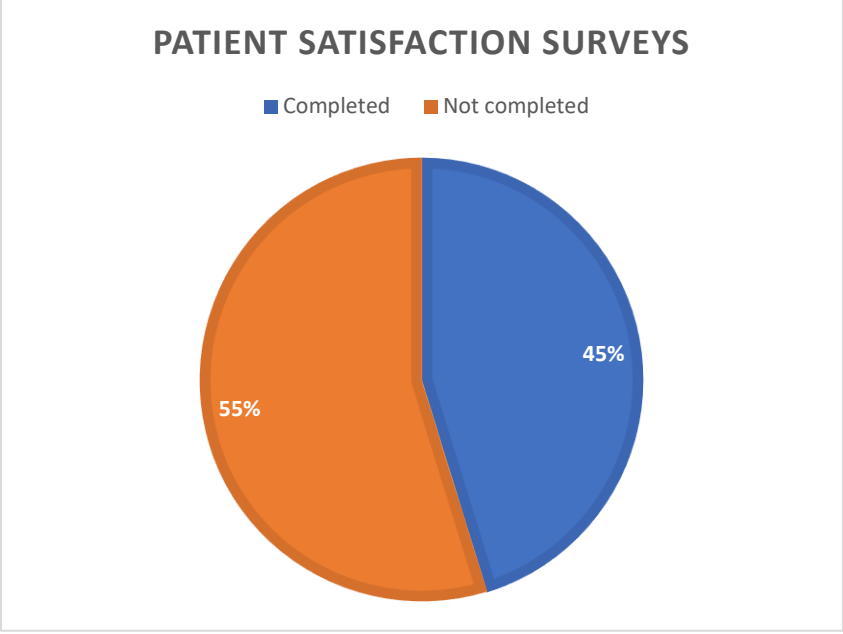


Figure 2. *New Standardized Protocol versus Standard NPO after midnight*

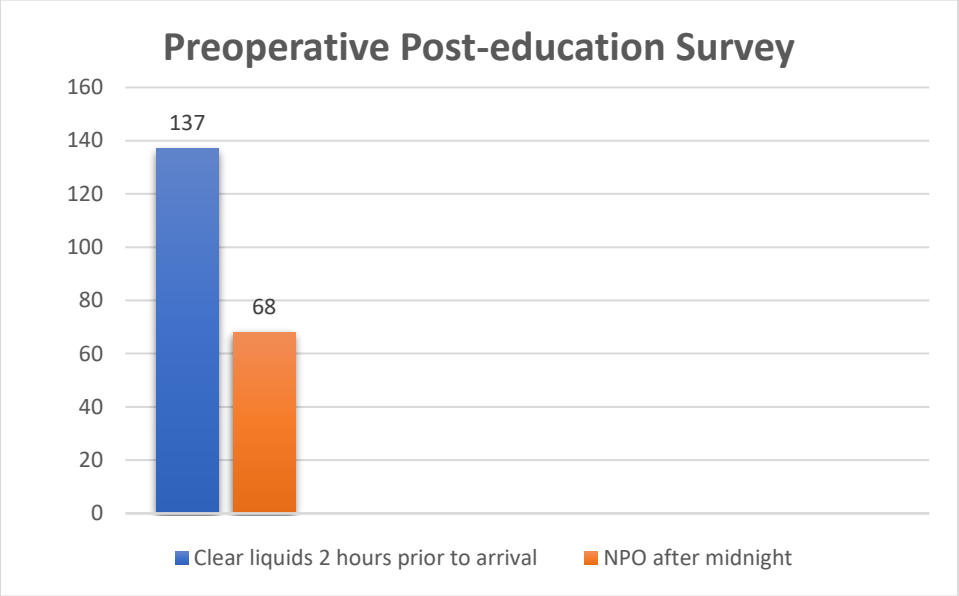
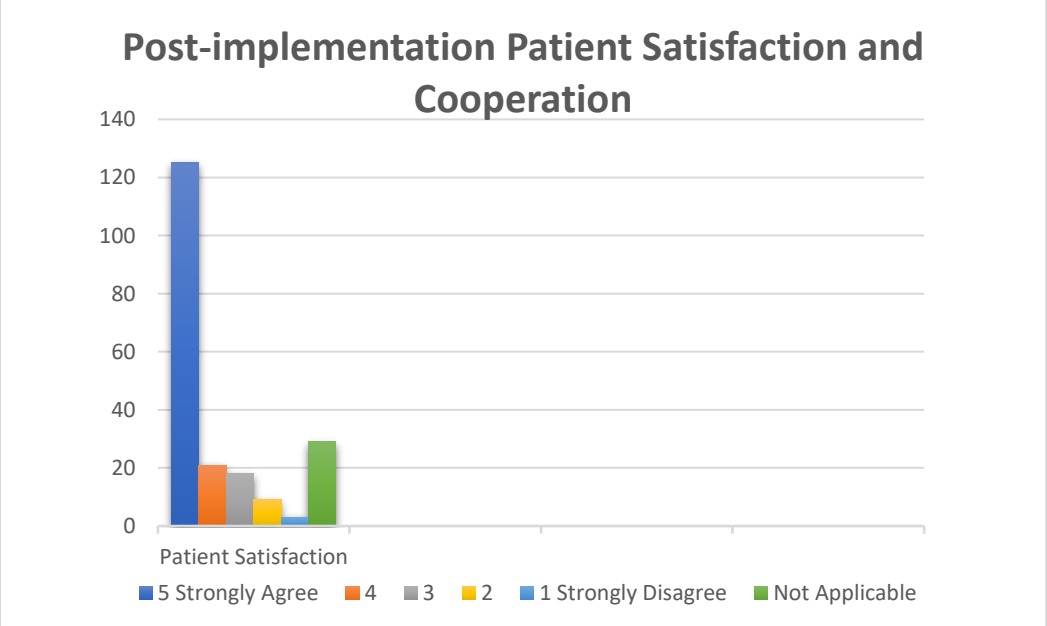


Figure 3. *Patient Cooperation and Satisfaction Following New Fasting Guidelines*



Return on Investment (ROI)/Value of Investment (VOI)

The value of investment (VOI) of this project in terms of decreasing fasting duration, patient and parent/guardian satisfaction, and clarity of preoperative instructions was positive based off survey responses. This DNP student was unable to determine the return on investment

(ROI) with data that was collected. However, after analyzing the data, it is reasonable to assume that allowing clear liquids up to two hours prior to arrival time may reduce fasting durations and overall increase pediatric patient cooperation and satisfaction. Increasing patient and parent/guardian satisfaction can in turn improve HCAHPS survey results. Final expenses for the project in its entirety are unchanged from Table 4.

Key Lessons Learned

One of the most important lessons obtained from completing this project was recognizing the significance of buy-in from staff as they play a crucial role in achieving success throughout implementing and executing the project. Buy-in from staff allows for successes and smooth transitions throughout the project's entirety. Another key lesson learned was the importance of communication to mitigate barriers faced during the project implementation phase. Lastly, although parents and guardians were given preoperative fasting guidelines that allowed the patients to consume clear liquids up to 2 hours prior to arrival time, (33.17%) of the patients remained nothing by mouth (NPO) after midnight. In completing this project again, it would be important to investigate the reason they chose not to offer the child clear liquids up to 2 hours prior. Additionally, rather than giving the parents and guardians the choice to offer the child clear liquids, it should be strongly encouraged, and then patient cooperation and satisfaction should be reassessed for marked improvement from initial results.

Sustainability

Potential barriers to sustainability and mitigation plans were discussed previously. Utilization of the new standardized preoperative pediatric fasting guidelines is key to sustainability of the practice change. As patients were significantly more cooperative, parents and guardians were more satisfied with the new fasting guidelines provided by nursing

preoperatively. Continued education provided to nursing staff ensures compliance and adherence with the new preoperative education guidelines. Patients under the age of 2 years old who believed the preoperative guidelines were not applicable to them due to their arrival times, were no longer provided with satisfaction surveys. To maintain sustainability, a formal policy allows for uniformity among staff when providing preoperative education and yearly training among current and new staff can be performed to maintain up-to-date knowledge regarding current practice guidelines.

Dissemination

Dissemination

A project posterboard presentation will be presented to faculty, staff, and students in the FNP/DNP program in addition to a poster for the surgery center. Lastly, the abstract for this quality improvement project will be submitted to the American Society of Anesthesiologists (ASA) and CT APRN's conference in 2024.

Implications of Project Results to Organization, Practice Community

The 2017 guidelines developed by the American Society of Anesthesiologists (ASA) reiterates recommendations for consuming clear liquids until 2 hours preoperatively. Pediatric patients fasting durations are often considerably longer than recommendations and lengthy fasting can have considerable adverse consequences (Joshi et al., 2023). Therefore, continuing to provide fasting instructions and education and encourage patients coming to the surgery center to consume clear liquids up to 2 hours preoperatively will help to minimize prolonged fasting durations in children.

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Appendix A

Description of Evidence Search

Searches through the following databases were conducted including: CINAHL Complete, MEDLINE with Full Text, PubMed, and TRIP. Keywords searched were the following: pediatric preoperative fasting guidelines, standard preoperative fasting guidelines, ambulatory surgery, fasting duration, pediatric surgery, anesthesia, practice guidelines. Limits and filters for each of the individual databases included being published 2016-2023, English, full-text, abstract, and peer-reviewed. Inclusion criteria for the articles selected from each of the databases were pediatric, preoperative fasting, and guidelines.

PICO Question: In pediatric ambulatory surgery patients (P), does providing education on the importance of clear fluids until 2 hours prior to surgery via teach-back method (I) compared to the standard 8-hour fasting guidelines (C) affect preoperative fasting duration (O)?

Appendix B

Rapid Critical Appraisal

Validity of Evidence Synthesis (i.e., good methodology)	1-No	2-A Little	3-Some	4-Quite	5-Very	Data to support rating
1. The title of the publication identifies the report/project as an evidence-based practice implementation or quality improvement project.					5	Title: A Pilot Quality Improvement Project to Reduce Preoperative Fasting Duration in Pediatric Patients
2. The project report provides a structured summary that includes, as applicable: data to establish the existent and background of the clinical issue, inclusion and exclusion criteria and source(s) of evidence, evidence synthesis, objective(s) and setting of the EBP or QI project, project limitations, results/outcomes, recommendation and implications for policy.					5	Clinical issue: unnecessarily prolonged preoperative fasting for pediatric patients. Setting: 365-bed, academic children's hospital in Northern California Inclusion: The patients included in this project were pediatric surgical inpatients > or = 1 year old scheduled for elective surgeries. Exclusion: Neonates Limitations: patients who received the pre-anesthesia diet were nonrandomly chosen based on provider preference→ subject to bias; approximately 16% of this population still endured NPO times of >8 hours; small sample size Results/outcomes: post-implementation, 127 patients received the pre-anesthesia diet and
3. Report includes existing internal evidence to adequately describe the clinical issue			3			ASA preoperative fasting guidelines allows clear liquids up to 2 hours before anesthesia based on multiple studies (not named)

Validity of Evidence Synthesis (i.e., good methodology)	1-No	2-A Little	3-Some	4-Quite	5-Very	Data to support rating
4. Provides an explicit statement of the question being addressed with reference to participants or population/intervention/comparison/outcome (PICO).			4			PICO is not explicitly stated but all parts identified throughout the article. Population: pediatric surgical inpatients scheduled for elective surgery. Intervention: standardized clear liquid diet Comparison: NPO after midnight Outcome: Reduction in fasting duration <6 hours.
5. Explicitly describes the search method, inclusion and exclusion criteria, and rationale for search strategy limits.	1					Missing.
6. Describes multiple information sources (e.g., databases, contact with study authors to identify additional studies, or any other additional search strategies) included in the search strategy, and date.	1					Missing.
7. States the process for title, abstract, and article screening for selecting studies.	1					Missing.
8. Describes the method of data extraction (e.g., independently or process for validating data from multiple reviewers)			3			By using lean methodology, the improvement team developed an A3 project
9. Includes conceptual and operational definitions for all variables for which data were abstracted (e.g., define blood pressure as systolic blood pressure, diastolic blood pressure, ambulatory blood pressure, automatic cuff blood pressure or arterial blood pressure)			3			Defines NPO, clear liquid diet, pre-anesthesia diet
10. Describes methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level).			3			Nonrandomly chosen based on provider preference→subject to bias (identified as a limitation)
11. States the principal summary measures (e.g., risk ratio, difference in means).	1					Missing.
12. Describe the method of combining results of studies including quality, quantity, and consistency of evidence	1					Missing.
13. Specifies assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies)			3			Nonrandomly chosen based on provider preference→subject to bias (identified as a
14. Describes appraisal procedure and conflict resolution.	1					Missing.

Validity of Evidence Synthesis (i.e., good methodology)	1-No	2-A Little	3-Some	4-Quite	5-Very	Data to support rating
15. Provides number of studies screened, assessed for eligibility, and included in the review, with reasons for exclusion at each stage, ideally with a flow diagram.	1					Missing.
16. For each study, presents characteristics for which data were extracted (e.g., study size, design, method, follow-up period) and provides citations.	1					No presentation of studies and their characteristics.
17. Presents data on risk of bias of each study and, if available, any outcome-level assessment.	1					No data given on risk of bias for studies.
18. For all outcomes considered (benefit or harms), include a table with summary data for each intervention group, effect estimates, and confidence intervals, ideally with a forest plot.		2				Table 1. Demographics of the two groups Table 2. Fasting Duration (NPO at midnight vs. Pre-anesthesia diet)
19. Summarizes the main findings including the strength of evidence for each main outcome; considering their relevance to key groups (i.e., health care providers, users, and policy makers)		2				Results section discloses main findings based off the two groups studied (Pre-implementation vs. postimplementation)
20. Discusses limitations at study and outcome level (e.g., risk of bias), and at review level (e.g., incomplete retrieval of identified research, reporting bias).					5	Identified 4 limitations to the project in the results section including reasoning for risk of bias.
21. Provides a general interpretation of the results in the context of other evidence, and implications for further research, practice or policy changes.				4		Future directions of this project will involve educational efforts to providers and staff to increase adoption and safety monitoring.
Validity of Implementation (i.e., well-done project)						
1. Purpose of project flows from evidence synthesis				4		Local and international data identifies the benefit and safety of shorter NPO duration.
2. Stakeholders (active & passive) are identified and communication with them is described			3			Perioperative quality improvement team: anesthesiologists, surgeons, pediatricians, nurses, clinical nutritionists, quality managers, and family advocates.
3. Implementation protocol is congruent with evidence synthesis (fidelity of the intervention)					5	ASA preoperative fasting guidelines is clearly addressed.
4. Implementation protocol is sufficiently detailed to provide for replication among project participants					5	Pre-anesthesia diet is clearly and thoroughly discussed.

Validity of Evidence Synthesis (i.e., good methodology)	1-No	2-A Little	3-Some	4-Quite	5-Very	Data to support rating
5. Education of project participants and other stakeholders is clearly described	1					Missing.
6. Outcomes are measured with measures supported in the evidence synthesis	1					Outcomes measured/supported in the evidence synthesis not identified.
Reliability of Implementation Project (i.e., I can learn from or implement project results)						
1. Data are collected with sufficient rigor to be reliable for like groups to those participants of the project.					5	Can be implemented in the adult population.
2. Results of evidence implementation are clinically meaningful (statistics are interpreted as such)					5	Wilcoxon rank-sum test used to determine statistical significance of group differences in fasting duration before and after implementation of the diet order, with P <0.05 (significant)
Application of Implementation (i.e., this project is useful for my patients)						
1. How feasible is the project protocol?					5	Feasible and practical protocol for pediatric inpatients undergoing elective surgery.
2. Have the project managers considered/included all outcomes that are important to my work?	1					None.
3. Is implementing the project safe (i.e., low risk of harm)?					5	The project demonstrated the ability to safely decrease NPO duration among pediatric inpatients without increasing overall aspiration events.
Summary Score						**91**

Recommendations with consideration of this type of level IV intervention evidence:

- 32–64: consider evidence with extreme caution
- **65–128: consider evidence with caution**
- 128–160: consider evidence with confidence

Quality Rating for Organizational Experience (Quality improvement, program or financial evaluation) (Dearholt & Dang, 2018)

A <u>High quality:</u> Clear aims and objectives; consistent results across multiple settings; formal quality improvement or financial evaluation methods used; definitive conclusions; consistent recommendations with thorough reference to scientific evidence

B <u>Good quality:</u> Clear aims and objectives; formal quality improvement or financial evaluation methods used; consistent results in a single setting; reasonably consistent recommendations with some reference to scientific evidence

C <u>Low quality or major flaws</u>: Unclear or missing aims and objectives; inconsistent results; poorly defined quality improvement/financial analysis method; recommendations cannot be made

Dearholt, S., & Dang, D. (2018). *Johns Hopkins Nursing Evidence-based Practice: Models and Guidelines* (3rd ed.). Indianapolis, IN: Sigma Theta Tau.

Nye, A., Conner, E., Wang, E., Chadwick, W., Marquez, J., & Caruso, T. J. (2019). A pilot quality improvement project to reduce preoperative fasting duration in pediatric inpatients. *Pediatric Quality and Safety*, *4*(6). https://doi.org/10.1097/pq9.0000000000000246

Appendix C

PICO Question: In pediatric ambulatory surgery patients (P), does providing education on the importance of clear fluids until 2 hours prior to surgery via teach-back method (I) compared to the standard 8-hour fasting guidelines (C) affect preoperative fasting duration (O)?

Citation	Design/ Method	Sample/Setting	Variables	Outcome Measurement	Findings	Level of Evidence	Quality of Evidence: Critical Worth to Practice
Article 1							
Schmidt, A. R., Buehler, K. P., Both, C., Wiener, R., Klaghofer, R., Hersberger, M., Weiss, M., & Schmitz, A. (2018). Liberal fluid fasting: Impact on gastric ph and residual volume in healthy children undergoing general anaesthesia for elective surgery. *British Journal of Anaesthesia*, *121*(3), 647–655. https://doi.org/10.1016/j.bja.2018.02.065	RCT	December 2015-July 2016 162 children aged 1-16 years old ASA I or II undergoing elective procedures with general anesthesia requiring tracheal intubation. Absence of GI disorders Randomized for clear fluid intake until premedication with midazolam (liberal) versus 2 hour fluid fasting (standard) Exclusion: any violation of the prescribed fasting times, parental withdrawal of consent, or new GI disorders before anesthesia.	IV: Liberal fasting guidelines DV: Gastric pH and residual	Increased patient and family satisfaction in the liberal fasting group. The median time between last intake of clear fluid and beginning of anesthesia was 48 minutes in the liberal fasting group and 3.9 hours in the standard fasting group.	The main finding was a significant reduction in the clear fluid fasting time, with 83% of the children in the liberal fasting group benefitting from fluid fasting of less than 2 hours. Median gastric residual volume and pH remained similar to values after conventional fluid fasting, but there were more patients with relatively high gastric residual volumes in the liberal fasting group.	Level 2: Randomized Controlled Trial	Fluid intake until premedication allows for significantly shorter fasting times, but residual gastric volumes occurred more frequently, when fasting time was less than 30 min.
Article 2							

Costello, C. M. (2016). Implementation of the American society of ANESTHESIOLOGY guidelines to reduce prolonged fasting times in pediatric preoperative patients. *JBI Database of Systematic Reviews and Implementation Reports*, *14*(10), 251–262. https://doi.org/10.11124/jbisrir-2016-003171	EBP	ASA Grade 1 or 2, non-emergent, free of gastrointestinal absorption issues and not obese. Excluded if English or Spanish was not the preferred language and if preoperative fasting instructions were not provided by the pre-admitting clinic's NPs.	IV: pre-operative fasting duration DV: Implementation of ASA NPO pediatric guidelines	Reduction of pediatric preoperative fasting duration	Although compliance with fasting less than 12 hours more than doubled, only half of the patients/parents adhered to the project guidelines.	Level 6: EBP	Standard fasting guidelines of "nothing by mouth after midnight" are associated with excessive fasting times resulting in pediatric patients fasting up to 6.5 times longer than if the ASA guidelines had been followed.
Article 3							
Isserman, R., Elliott, E., Subramanyam, R.,Kraus, B., Sutherland, T., Madu,C., & Stricker, P. A. (2019). Quality Improvement Project to reduce pediatric clear liquid fasting times prior to anesthesia. *Pediatric Anesthesia*, *29*(7), 698–704. https://doi.org/10.1111/pan.13661	QI project	July 2017-August 2018 16,000 children, approx. 10,000 in main ORs and 6,000 at the ASCs. Focused on children who presented from home for procedures requiring general anesthesia. Special populations (disease-specific fasting) or any non-standard fasting instructions was excluded.	IV: clear liquid fasting times DV: clear liquid fasting instructions	Unnecessarily long preprocedural fasting can cause suffering and distress for children and their families.	The percentage of children with goal clear liquid fasting times improved from the baseline of 20%-63%, with a change in the mean fasting time from 9 hours to 6 hours.	Level 6: QI Project	Shorter fasting times reduce patient and family distress, improve patient comfort, and may attenuate the hemodynamic effects of the perioperative period.
Article 4							
Dorrance, M., & Copp, M. (2019). Perioperative Fasting: A Review. *Journal of*	Review	Preprocedural/ preoperative fasting- review of best practice	IV: Preprocedural fasting guidelines	n/a	Studies have shown that long fasting times are not only	Level 6: Review	Current guidelines are that patients should be

Perioperative Practice, *30*(7-8), 204–209. https://doi.org/10.1177/1750458919877591			DV: Fasting duration, patient comfort, and satisfaction		detrimental to patients' comfort and satisfaction, but also poor preparation for the stress of surgery.		encouraged to consume clear fluids (including hot drinks with small amounts of milk) up until two hours before their procedure and should have not consumed solid foods for at least six hours prior to their procedure (or eight hours if food contained meat or fried foods).
Article 5							
Fawcett, W. J., & Thomas, M. (2018). Pre-operative fasting in adults and children: Clinical practice and guidelines. *Anaesthesia*, *74*(1), 83–88. https://doi.org/10.1111/anae.14500	Clinical Practice Guidelines	Pre-operative fasting in adults and children→clinical practice and guidelines	IV: 2-hour clear liquid fasting guidelines DV: Fasting duration; aspiration risk	n/a	A 2-hour clear fluid fasting rule translates into measured fasting durations of 6–13 hours. Evidence supports a 1 hour fast for children with no increase in risk of pulmonary aspiration.	Level 6: CPG	Longer fasting can lead to hypotension on induction of anesthesia, and evidence of a catabolic state. Prolonged fasting is associated with an increased incidence of postoperative nausea and vomiting.
Article 6							
Huang, X., Zhang, H., Lin, Y., Chen, L., Peng, Y., Jiang, F., Lin, F., Li, S., & Lin, L. (2020). Effect of oral glucose water administration 1 hour preoperatively in children with Cyanotic congenital heart disease: A	RCT	September 2014-May 2017 Inclusion criteria: 0-3 years of age; cyanotic congenital	IV: administration of oral glucose water 1 hour prior to surgery	Gastric content in the 1 hour fasting group was 0.34±0.35 ml/kg body weight, ,	The 1 hour fasting group showed lower frequencies of crying, thirst,	Level 2: Randomized Controlled Trial	1 hour fast prior to surgery was shown not to be inferior to a 2 hour fast in

randomized controlled trial. *Medical Science Monitor*, *26*. https://doi.org/10.12659/msm.922642		heart disease diagnosis; scheduled for heart surgery Exclusion criteria: disease or congenital malformation that affected the structure or function of the digestive system; severe liver, kidney, brain or other major organ disease; history of taking H2 receptor antagonists or proton pump inhibitors.	DV: Gastric contents and adverse reactions	smaller than in the 2 hour fasting group Blood glucose levels in the 1 hour fasting group were higher compared with the 2 hour fasting group The rate of patients with gastric content was lower in the 1 hour fast group	and hypoxia, but there were no differences for vomiting, witnessed pulmonary aspirations, and heart failure		terms of gastric residuals and adverse effects in pediatric patients with cyanotic congenital heart disease diagnoses
Article 7							
Aroonpruksakul, N., Punchuklang, W., Kasikan, K., Laotaweesuk, N., Phoson, P., Khongrod, R., & Kiatchai, T. (2023). The actual duration of preoperative fasting in pediatric patients, and its effects on hunger and thirst: A prospective observational study. *Translational Pediatrics*, *12*(2), 146–154. https://doi.org/10.21037/tp-22-358	Prospective observational study	August 2019-August 2020 Inclusion criteria: Patients 0-15 years of age scheduled for elective surgery or for other procedures to be performed under general anesthesia. Exclusion criteria: patients who had to be fasted due to a surgical or medical indication other than preoperative fasting; developmental delays and neurological impairment; ages 7+ who could not communicate, and	IV: preoperative fasting duration DV: hunger score	The hunger score was not decreased with administration of dextrose intravenous fluid. Median fasting times for food and clear liquid of 11.1 and 10.0 hours, which is extremely prolonged compared to recommended practice guidelines.	High hunger score was reported in 76.4% of participants. Patients who received 5% dextrose intravenous fluid preoperatively had higher hunger score (85.7%) Younger age group and anesthesia start time in the afternoon were factors associated with high hunger score.	Level 4: Case control or cohort study	The actual preoperative fasting duration was identified to be longer than the recommended for both food and liquid in pediatric surgical population. Younger patients and later surgical start times were associated with higher hunger scores.

		parents of children aged younger than 7 years who could not communicate.					

Appendix D

Evidence Synthesis Table

	Articles Selected from Evidence Review						
X (copy symbol as needed)	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Level I: Systematic review or meta-analysis							
Level II: Randomized controlled trial	x					x	
Level III: Controlled trial without randomization							
Level IV: Case-control or cohort study							x
Level V: Systematic review of qualitative or descriptive studies							
Level VI: Qualitative or descriptive study, CPG, Lit Review, QI or EBP project		x	x	x	x		
Level VII: Expert opinion							

LEGEND

1: (Schmidt et al., 2018); 2: (Costello, 2016); 3: (Isserman et al., 2019); 4: (Dorrance & Copp, 2019); 5: (Fawcett & Thomas, 2018); 6: (Huang et al., 2020); 7: (Aroonpruksakul et al., 2023)

Evidence Outcome Table

	Articles Selected from Evidence Review						
↑, ↓, —, NE, NR, ✓ (select symbol and copy as needed)	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Outcome #1 Fasting duration	⇩	⇩	⇩	⇩	⇩	**NR**	⇧
Outcome #2 Gastric residual	⇧	**NE**	**NE**	**NE**	**NE**	⇩	**NE**
Outcome #3 Patient satisfaction	⇧	**NE**	⇧	⇧	**NE**	**NR**	**NE**
Outcome #4 Aspiration risk	—	**NE**	**NE**	**NE**	—	—	**NE**
Outcome #5 Hunger score	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	⇧

SYMBOL KEY

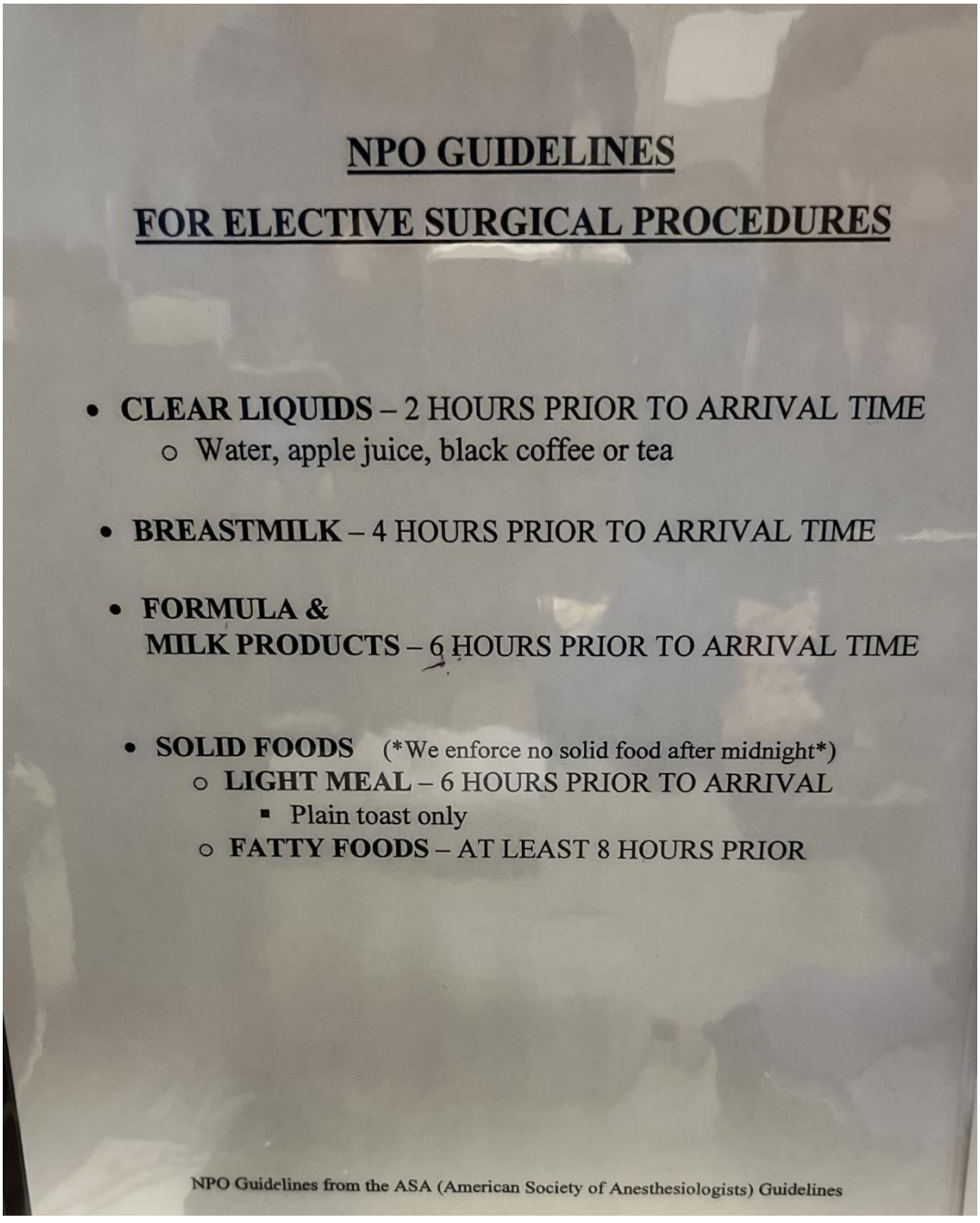
↑ = Increased, ↓ = Decreased, — = No Change, NE = Not Examined, NR = Not Reported, ✓ = applicable or present

LEGEND

1: (Schmidt et al., 2018); 2: (Costello, 2016); 3: (Isserman et al., 2019); 4: (Dorrance & Copp, 2019); 5: (Tudor-Drobjewski et al., 2018); 6: (Huang et al., 2020); 7: (Aroonpruksakul et al., 2023)

Appendix E

Current Fasting Guidelines



Appendix F

Patient Satisfaction Survey

Age: _____ Arrival Time: _____

1. What time was the last intake of clear liquids? _____

2. Please rate the quality and clarity of the fasting instructions provided during the preoperative phone call.

5	4	3	2	1

Very good **Very poor**

3. Do you agree that your child was more cooperative/satisfied having clear liquids 2 hours prior to arrival time?

5	4	3	2	1

Strongly agree **Strongly disagree**

4. How satisfied are you to be able to offer your child clear liquids up to two hours prior to arrival time versus nothing to eat or drink after midnight?

5	4	3	2	1

Very satisfied **Very dissatisfied**

5. Based off the preoperative fasting instructions provided, how was the importance of following the fasting instructions addressed?

5	4	3	2	1

Extremely important **Not important at all**

Encuesta de satisfacción del paciente

Edad: _____ Hora de llegada: _____

1. ¿A qué hora fue la última ingesta de líquidos claros? _____

2. Califique la calidad y claridad de las instrucciones de ayuno proporcionadas durante la llamada telefónica preoperatoria.

5	4	3	2	1

Muy bien **Pobretón**

3. ¿Está de acuerdo en que su hijo fue más cooperativo/satisfecho con los líquidos claros 2 horas antes de la hora de llegada?

5	4	3	2	1

Totalmente de acuerdo **Totalmente en desacuerdo**

4. ¿Qué tan satisfecho está de poder ofrecerle a su hijo líquidos claros hasta dos horas antes de la hora de llegada en lugar de no comer ni beber nada después de la medianoche?

5	4	3	2	1

Muy satisfecho **Muy insatisfecho**

5. Sobre la base de las instrucciones de ayuno preoperatorio proporcionadas, ¿cómo se abordó la importancia de seguir las instrucciones de ayuno?

5	4	3	2	1

Extremadamente importante **No es importante en absoluto**

Appendix G

DNP Project Roadmap

Component	Definition	Date Done
Phase 1: Problem Identification and Evidence Review		
Clinical Inquiry including background and significance of problem	Describe local problem and its significance. Include data to frame local problem.	January 23, 2023
Organizational priority	Summarize information that supports topic/problem is an organizational priority.	January 23, 2023
Searchable Question	Write a focused, searchable question using an established method (e.g. PICO).	May 19, 2023
Evidence search	External evidence • Summarize search strategy (e.g. databases, keywords, filters/limits, criteria for article selection, tools for critical appraisal). Include practice-based evidence (e.g. evidence-based solutions that experts/other health systems have implemented to address practice problem).	June 20, 2023
	Internal evidence • Summarize applicable unit/community/department/hospital/organizational level data or data required for national entities (e.g. CMS, NDNQI, AHRQ).	June 20, 2023
	Perform needs assessment if applicable.	N/A
Evidence appraisal, summary, and recommendations	Organize evidence that answers focused clinical question in a clear concise format (e.g. table or matrix).	June 25, 2023
	Appraise literature for quality and applicability of evidence using established method (e.g. Johns Hopkins Nursing EBP Research Evidence Appraisal Tool, Joanna Briggs Institute Critical Appraisal Tools, Fuld Institute for EBP critical appraisal tools etc.).	June 25, 2023
	State recommendations(s) and link to evidence strength and quality and risk/benefits.	July 2, 2023
Phase 2: Project Planning		
Project goals	State intended, realistic outcomes of project using established method (e.g. SMART criteria).	July 14, 2023

Framework	Select framework/model to guide implementation (e.g. EBP model, QI framework, Change model).	July 14, 2023
Context	Describe project setting and participants or population, or other elements that are central to where the change will occur.	July 23, 2023
Key stakeholders	Identify agencies, departments, units, individuals needed to complete the project and/or affected by project, and strategies to gain buy-in.	July 23, 2023
Practice change/intervention	Provided detailed description of practice change or intervention (e.g. new or revised policy).	July 23, 2023
Evaluation	Summarize plan for evaluating the effectiveness of the practice change. Identify applicable process and outcome data to be collected/tracked and tools to do this. Identify the methods for analyzing/interpreting the data (e.g. control, run or Pareto charts).	July 23, 2023
Possible barriers to implementation	Identify possible barriers and implementation strategies to mitigate these barriers.	July 26, 2023
Sustainment	Identify strategies to sustain the change.	July 26, 2023
Timeline	Create a realistic timeline for project completion.	July 26, 2023
Resources	Identify all resources (e.g. indirect and direct) needed to complete the project.	July 26, 2023
Ethical merit	Identify and obtain the required review and approval needed for implementation (e.g. institution, community agency, IRB).	July 26, 2023
Phase 3: Implementation		
Implement project	Carry out the project using selected implementation framework/model.	December 2023, January 2024, February 2024
	Track any deviations/changes from the project plan.	February 2024-April 2024
Phase 4: Evaluation		
Results/Interpretation	Using an established method (e.g. run or control charts) display data and interpret project outcomes.	March 2024
	Report evaluation of the effectiveness of the practice change, including extent the practice change was implemented (process outcome) and extent to which the desired outcome(s) were achieved.	March 2024
Return on investment	Identify the final resources that were used to implement the project. Calculate and report the return on investment.	March 2024

Phase 5: Dissemination		
Traditional	Disseminate to the project setting in a manner meaningful to them (e.g. executive report, poster, presentation at a meeting, poster with QR code to access details of project, etc.)	April 2024
	Disseminate in the format required by the academic institution (e.g. poster, public presentation) and	April 2024
	Prepare final project write-up using established reporting guidelines (e.g. EPQA, SQUIRE) and academic institution requirements.	April 2024
Non-traditional	Develop a website to display project, use personal or program social media (e.g. Twitter, Facebook) to share project information.	

PICO, Population, Intervention, Comparison, Outcome; **CMS**, Center for Medicaid and Medicare Services; **NDNQI**, National Dataset of Nursing Quality Indicators; **AHRQ**, Agency for Healthcare Research and Quality; **SMART**, specific, measurable, attainable, relevant, timely; **IRB**, Institutional Review Board; **EPQA**, Evidence-Based Practice Process Quality Assessment Guidelines; **SQUIRE,** Standards for QUality Improvement Reporting Excellence

Appendix H

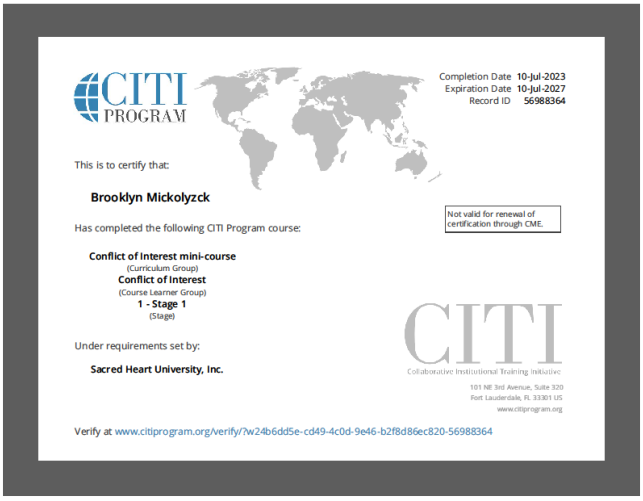
Differentiating Quality Improvement and Research Activities Tool

Question	Yes	No
1. Is the project designed to bring about immediate improvement in patient care?	X	
2. Is the purpose of the project to bring new knowledge to daily practice?	X	
3. Is the project designed to sustain the improvement?	X	
4. Is the purpose to measure the effect of a process change on delivery of care?	X	
5. Are findings specific to this hospital?	X	
6. Are all patients who participate in the project expected to benefit?	X	
7. Is the intervention at least as safe as routine care?	X	
8. Will all participants receive at least usual care?	X	
9. Do you intend to gather just enough data to learn and complete the cycle?	X	
10. Do you intend to limit the time for data collection in order to accelerate the rate of improvement?	X	
11. Is the project intended to test a novel hypothesis or replicate one?		X
12. Does the project involve withholding any usual care?		X
13. Does the project involve testing interventions/practices that are not usual or standard of care?		X
14. Will any of the 18 identifiers according to the HIPAA Privacy Rule be included?		X

Adapted from Foster, J. (2013). Differentiating quality improvement and research activities. Clinical Nurse Specialist, 27(1), 10–3. https://doi.org/10.1097/NUR.0b013e3182776db5

Appendix K

CITI Training Certificates



CITI PROGRAM

Completion Date 10-Jul-2023
Expiration Date 10-Jul-2027
Record ID 56988364

This is to certify that:

Brooklyn Mickolyzck

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

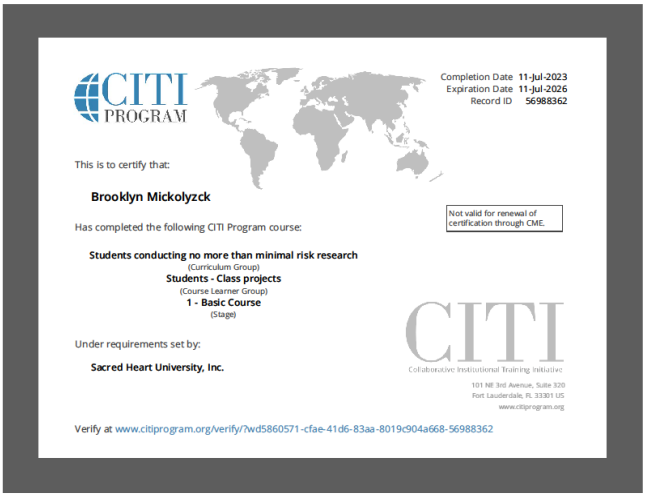
Conflict of Interest mini-course
(Curriculum Group)
Conflict of Interest
(Course Learner Group)
1 - Stage 1
(Stage)

Under requirements set by:

Sacred Heart University, Inc.

CITI
Collaborative Institutional Training Initiative
101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?w24b6dd5e-cd49-4c0d-9e46-b2f8d86ec820-56988364



CITI PROGRAM

Completion Date 11-Jul-2023
Expiration Date 11-Jul-2026
Record ID 56988362

This is to certify that:

Brooklyn Mickolyzck

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Students conducting no more than minimal risk research
(Curriculum Group)
Students - Class projects
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Sacred Heart University, Inc.

CITI
Collaborative Institutional Training Initiative
101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?wd5860571-cfae-41d6-83aa-8019c904a668-56988362

CITI PROGRAM

Completion Date 13-Jul-2023
Expiration Date 13-Jul-2026
Record ID 56988365

This is to certify that:

Brooklyn Mickolyzck

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Essentials of Research Administration
(Curriculum Group)
Essentials of Research Administration
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Sacred Heart University, Inc.

CITI
Collaborative Institutional Training Initiative
101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?w2ef2a2d1-5524-4066-aa5f-2b45dbff6f60-56988365

Appendix L

SHU IRB Exemption

RE: IRB#230906B - Exempt Status Request

Samuolis, Prof. Jessica <samuolisj@sacredheart.edu>
Mon 9/11/2023 3:27 PM
To:Mickolyzck, Brooklyn L. <gonzalezb14@mail.sacredheart.edu>
Cc:Esposito, Prof. Dorothea A. <espositod2682@sacredheart.edu>;IRB <IRB@sacredheart.edu>;Samuolis, Prof. Jessica <samuolisj@sacredheart.edu>

Brooklyn,

Thank you for the revised documents. Your application for exempt status is approved. Best of luck with your project.

Regards,
Dr. Samuolis

From: Mickolyzck, Brooklyn L. <gonzalezb14@mail.sacredheart.edu>
Sent: Monday, September 11, 2023 12:52 PM
To: Samuolis, Prof. Jessica <samuolisj@sacredheart.edu>
Subject: Re: IRB#230906B - Exempt Status Request

Good afternoon Dr. Samuolis,

I have reattached the updated form and my proposal as well. Thank you very much.

Sincerely,
Brooklyn Mickolyzck

From: Samuolis, Prof. Jessica <samuolisj@sacredheart.edu>
Sent: Monday, September 11, 2023 11:36 AM
To: Mickolyzck, Brooklyn L. <gonzalezb14@mail.sacredheart.edu>; Morrill, Sarah A. <morrills@sacredheart.edu>; Esposito, Prof. Dorothea A. <espositod2682@sacredheart.edu>
Cc: IRB <IRB@sacredheart.edu>; Samuolis, Prof. Jessica <samuolisj@sacredheart.edu>
Subject: RE: IRB#230906B - Exempt Status Request

Brooklyn,
Thank you for this information it has been very helpful in understanding your project. Please resubmit the IRB form with your below clarification added. Please also add on the form what data will be collected and how it will be kept confidential. Also, please remove patients as the human subjects in the human subjects section of the form. Once I receive all the revised materials together the IRB can move forward with a decision regarding exemption status. Again, I appreciate the below clarification.
Regards,
Dr. Samuolis
Acting Chair

From: Mickolyzck, Brooklyn L. <gonzalezb14@mail.sacredheart.edu>
Sent: Sunday, September 10, 2023 2:50 PM
To: Samuolis, Prof. Jessica <samuolisj@sacredheart.edu>; Esposito, Prof. Dorothea A. <espositod2682@sacredheart.edu>
Cc: Morrill, Sarah A. <morrills@sacredheart.edu>; IRB <IRB@sacredheart.edu>
Subject: Re: IRB#230906B - Exempt Status Request

Appendix M

NORTH HAVEN
SURGERY CENTER

Brooklyn,

After reviewing the IRB exemption status and completion of the Practice Site and Project Implementation form, you have the approval to begin implementation of your DNP Quality Improvement Project, “Pediatric Preoperative Fasting Guidelines Update and Education: A Quality Improvement Project” as of August 11, 2023, at the North Haven Surgery Center.

Valerie Lamarre, MSN, RN, CNOR
Clinical Director
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