



# Standardization of Postoperative Care Guidelines for Pediatric Cleft Palate Patients

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## INTRODUCTION

Cleft Palate: birth defect that occurs when infant's roof of mouth or palate does not join completely during week six through nine of pregnancy

- Leads to difficulty with feeding, speaking & teething
- Increases risks for: growth deficiencies, infections, & other complications

Microsystem Key Background Findings Analysis:

- Large Community-Based Children's Hospital
- Performs ~ 50 cleft palate repairs per year
- 2 types: cleft palate repair & cleft palate repair with iliac crest bone graft
- Post-op care guideline and order sets vary based on physician preference
- Post-operative LOS: < 24 hours
- First tolerated post-op feed occurring between hour 1 and hour 28
- Pain level: reported 0-4 upon discharge

## STATEMENT OF THE PROBLEM

At present, there is no standardization of postoperative care for the patients undergoing a cleft palate repair at a community-based pediatric hospital, allowing physicians to individualize their order sets, therefore affecting overall patient outcomes.

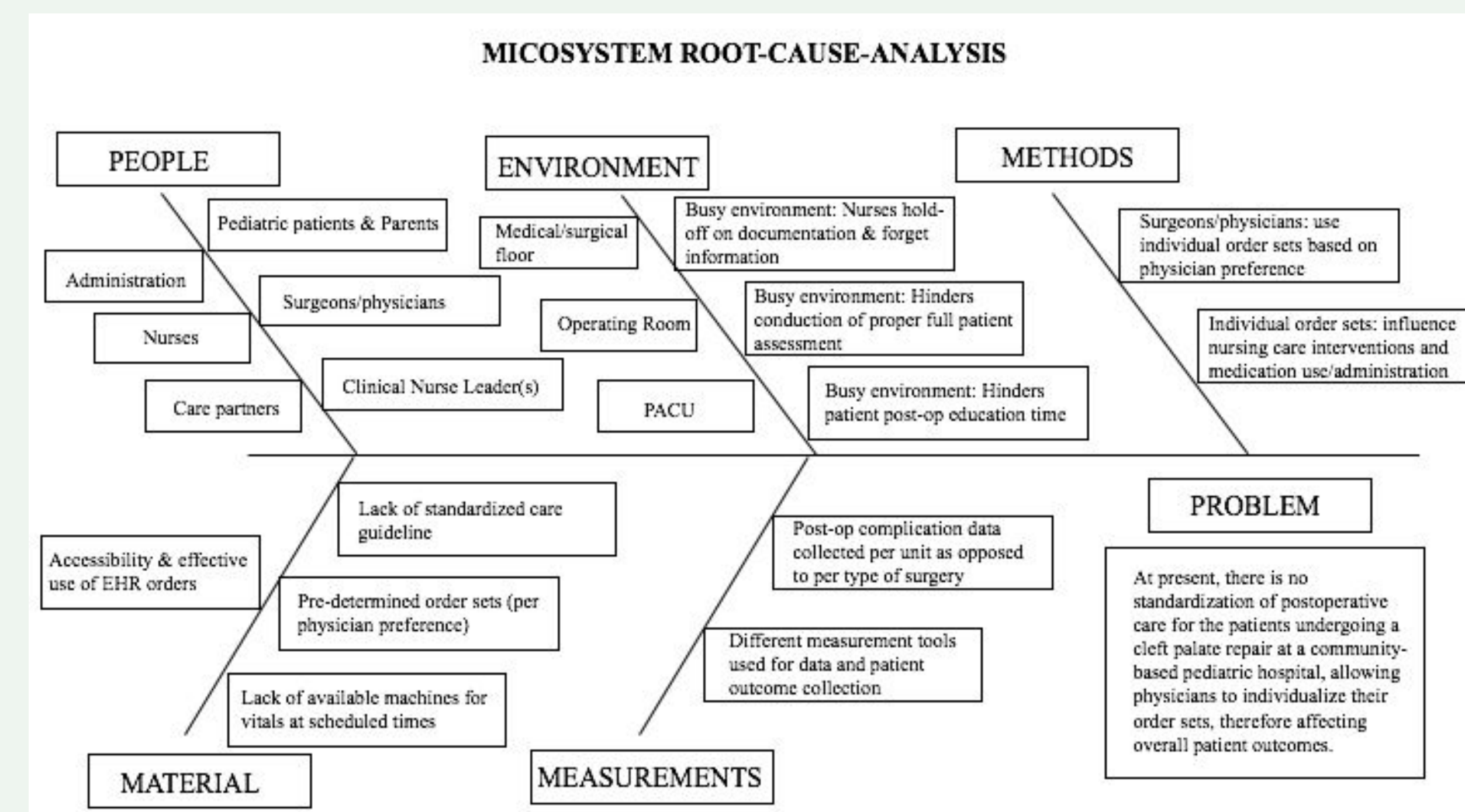
PICO: In pediatric cleft palate repair, how does standardization of care through the use of care guidelines, compared to individual physician preference, affect overall care outcomes, including: length of stay, first tolerated feed, and pain management?

Inclusion Criteria: Pediatric postoperative cleft palate repair patients.  
Exclusion Criteria: Patients with congenital abnormalities of the heart, brain, or GI system, and PICU admits. Patients with hematology/oncology conditions. Cleft palate repair resulting from palate injury.

Purpose: To research the best evidence-based postoperative techniques used to yield improved patient outcomes. Target outcomes:

- Length of stay (LOS)
- Feeding (first tolerated feed)
- Pain management

Based on the collected data through evidence-based practice, chart audits, and interprofessional team collaboration, data was studied, analyzed, and synthesized to create a standardized Care Guideline for postoperative cleft palate repair.



## METHODS

In order to determine the course of action in the creation of the care guideline for postoperative cleft palate repair, it was first necessary to review current microsystem data, the current needs, and existing literature. The initial request came from the inpatient nurses who then contacted the operating surgeons. This proposal provided a guideline which would assist in standardizing care for their postoperative pediatric patients, initiated and guided the need for the quality improvement change.

Design methods and interventions:

- Microsystem & IHI Culture Assessment
- ROI Plan
- Root-Cause Analysis
- Communication Plan
- Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis
- Intervention & Measurement Strategies
- Ethical Considerations

Evidence-Based Research: The most recent evidence-based practices and interventions were researched and compared with current (microsystem) practices.

Data Collection: Chart audit data collection from all pediatric cleft palate repair procedures performed within the last year. Data included: medication orders, pain management interventions, nursing interventions, discharge criteria, and feeding/diet orders. Order sets were analyzed, documented, and synthesized to compare decision-making policies and protocols for each surgeon.

## INTERVENTION

### Parameters for Care Guideline

- Inclusion/Exclusion Criteria
- Postoperative Assessment
- Medication Management
- Postoperative Diet
- Discharge Criteria
- Parent/Family Education
- Recommendations/Consideration

## EVALUATION PLAN

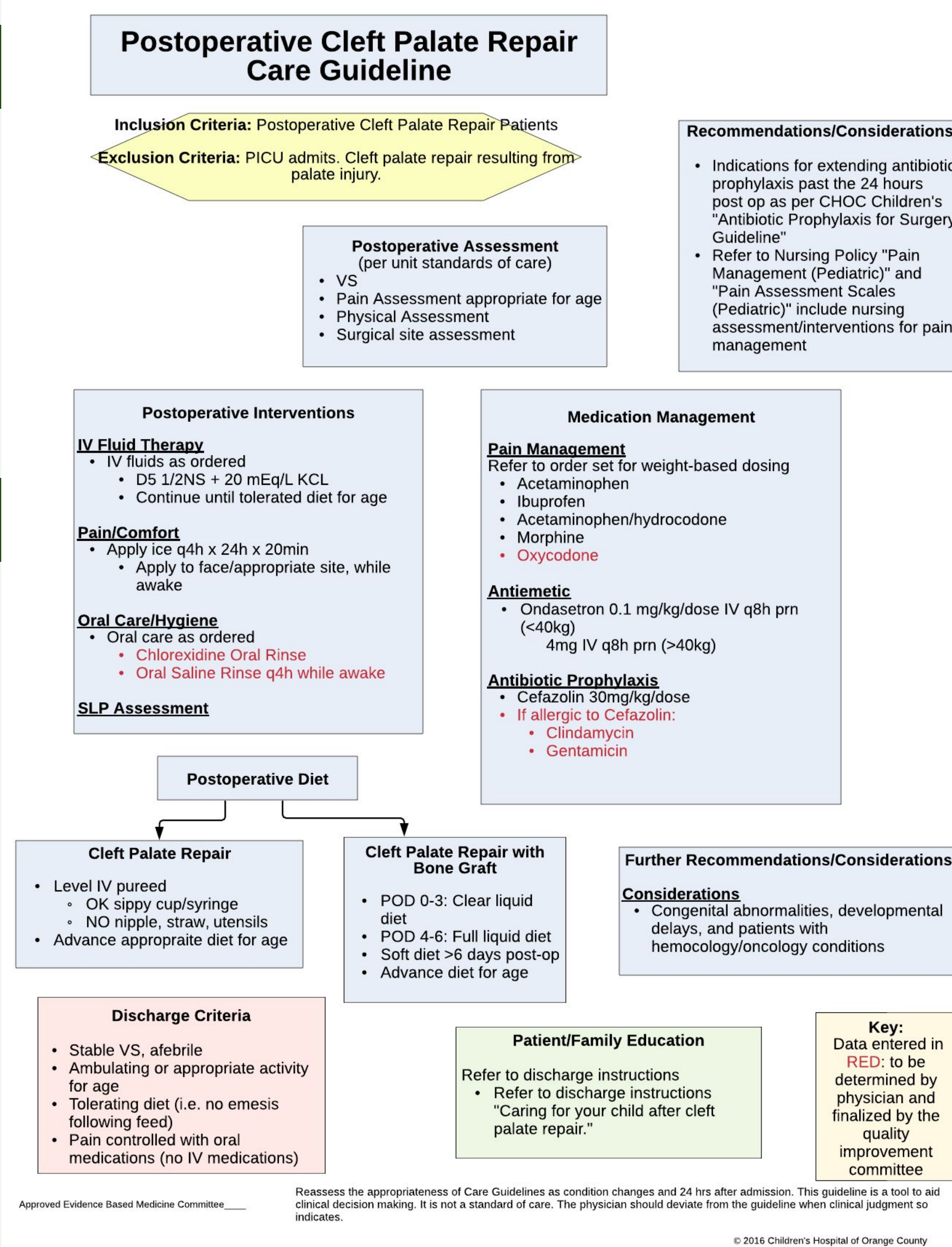
Before implementing the evaluation methods, the following will be implemented:

- Meet with key stakeholders (surgeons and staff of nursing management).
- Receive approval from the quality improvement committee and publish the guideline as a hospital resource.
- Educate surgeons, nurses, and other staff about the purpose, content and the use of this care guideline.

After one year of implementation, the following outcomes will be compared to the baseline data:

- Length of stay measured from time out of surgery to point of discharge.
- First tolerated feed measured by the time of first tolerated feed without emesis.
- Pain management measured with an age-appropriate pain scale at 4 hours, 8 hours, 12 hours, and at discharge.

## METHODS



## PROJECTED RESULTS

Based on existing evidence-based practices, it is suggested that results will include:

- Improved patient outcomes
  - Decreased length of stay
  - Improved pain management
  - Reduced time to tolerate first feeding
- Improved patient safety, patient and family satisfaction, and patient-centered care
- Potential savings in total cost per day in the surgical unit:
  - According to current hospital data, the total cost per day for a patient in the unit is about \$4,637 and can be further broken down into \$193.20 per hour.
  - If the implementation of care guidelines reduces hospital stay by 4 hours, then is expected that there will be a total cost saving of \$772.83.

## CONCLUSION

- Care guidelines are used throughout hospitals in the United States and are easily replicated and revised to include a wide range of high variability, high volume, and high risk conditions.
- Quality improvement projects are consistently being evaluated and reformulated to meet patient care needs and maintain hospital standards.
- The care guidelines for postoperative cleft palate repair patients, like other guidelines, are continuously evolving to reflect the best current evidenced-based practices.
- Care guidelines are used to account for variation among health care team decision-making to minimize error and generate improved outcomes while preserving individual differences.
- Standardizations of care facilitate high-quality communication and collaboration.

## CNL RELEVANCE

The Clinical Nurse Leader (CNL) will be able to work within health care settings to identify the need for change and carry out the steps necessary to create and implement the change(s) that will improve quality of care, safety, and patient outcomes; and serve as a leader and partner in the interdisciplinary health care team. In this way, the CNL serves as a system analysts by establishing and reviewing order sets for pediatric cleft palate repair patients with surgeons, clinical nurse specialist, and clinical coordinator. Additionally, the CNL will be able to work as an outcomes manager by designing a standardized care guideline for pediatric cleft palate repair patients and evaluating outcomes to continuously improve patient care delivery.

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