Low Volume, High Risk!

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Ensuring Pediatric Surgical Safety in a Non-Pediatric Medical Center: A Quality Improvement Project

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BACKGROUND

- An adult-focused medical center with an extremely low volume of pediatric surgical patients (.005%) incurred a trifecta of gaps related to safe pediatric care.
- Compounding the problem was insufficient safety tools to guide nursing care.
- This caused **increased nursing errors, situational unawareness, and knowledge gaps**.

PURPOSE

- The purpose of this project is to summarize the development and validation of **three new evidence-based pediatric surgical safety checklists** for the:
  - Surgical Preparation Area (SPA)
  - Operating Room (OR)
  - PostAnesthesia Care Unit (PACU)
- Aimed to increase nursing knowledge and compliance with safe pediatric care.
- The goal of this project is to ensure that no preventable safety errors occur during pediatric

DESIGN & METHODS

- Designed in two phases: The first phase was a pilot at an Ambulatory Surgery Center (ASC) with a high pediatric volume, and the second phase was at the Medical Center.
- The plan-do-study-act (PDSA) model, which is a widely used quality improvement method in surgical settings, with direct observation to develop and pilot the checklists, followed by a survey and education.

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PHASE 1 – ASC

PDSA & Survey

- Created a team of 6 expert pediatric nurses to assist in developing the safety checklists.
- Piloted the safety checklists in the clinical setting on 10 patients.
- Surveyed the expert nurses' confidence levels of the checklists.

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Phase 2 – Medical Center

Pre-Post Knowledge Test

- Educated the Medical Center nurses on the new safety checklists.
- Created 2 Healthstream modules, assigned to 59 nurses.
- Developed pre-post tests to measure the gain in knowledge.

Three new evidence-based safety checklists have increased nursing knowledge of pediatric surgical safety.

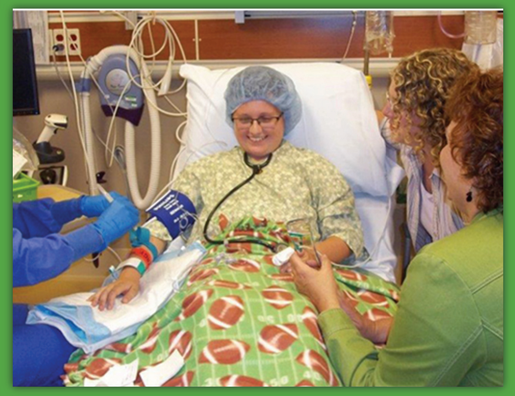


Image: Child Life Program Brochure, Kaiser Permanente. Pictured from left to right: Riley Claiborne, Susanne Knoetig, and Teresa Eggers.

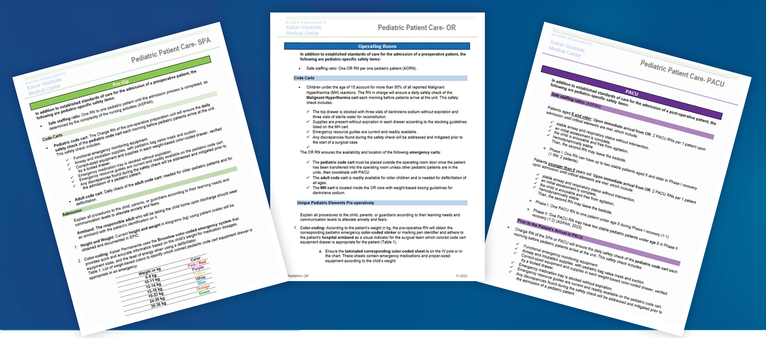
IMPACT

Impact for nursing

- Improved nurse knowledge.
- Develops situational awareness.
- Enforces safety changes in care delivery.
- Elevates confidence in practice.
- Enhances communication and teamwork between perioperative staff.
- Develops a culture of safety.

Impact on patient safety

- Minimizes risks.
- Improves patient outcomes.
- Promotes safe patient and family-centered care.

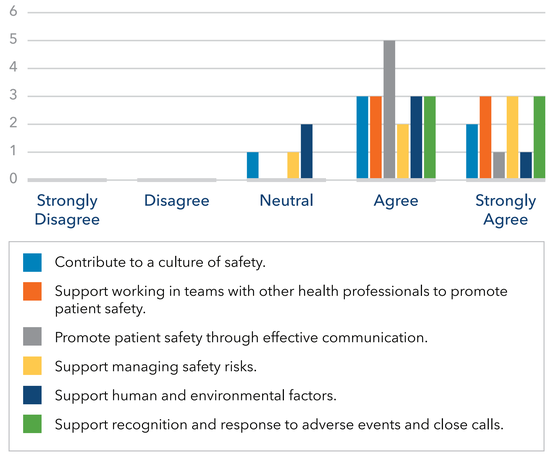


RESULTS

- Three new evidence-based pediatric patient safety checklists, developed by expert pediatric nurses.
- Zero adverse events or safety errors occurred during the pilot phase.

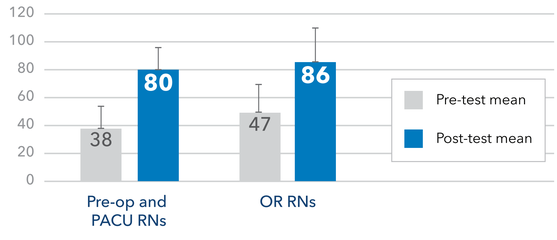
Survey results

- A survey was administered to the expert nurses who scored their confidence levels on the final safety checklists.
- Analysis: 36% strongly agree, 53% agree, 11% neutral/unsure, 0% disagree, and 0% strongly disagree.



Education results

- Education outcomes showed a 42% increase in knowledge with the SPA and PACU nurses and a 36% increase with the OR nurses.



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