Our Surgical Safety Journey at Phoenix Children's

Karen Johnson, MSN, RN, CNOR and Susan Johnson, MSN.....
Phoenix Children's, Phoenix, AZ

Description of Team

At Phoenix Children's, we identified a critical need to strengthen surgical safety practices across perioperative services. An internal review revealed inconsistent use of essential safety protocols—including the Universal Protocol and the Surgical Safety Checklist(7)—which contributed to 11 safety events or near misses over 18 months.
To address these gaps in process reliability and safety culture, we established a multidisciplinary Surgical Safety Committee led by the Director of Surgical Services. Committee membership included surgeon champions, perioperative medical directors, anesthesiology, PreOp/PACU leadership, managers, frontline staff, Clinical Education Specialists, and Quality and Safety consultants.
Six subcommittees were formed to evaluate, refine, and redesign key workflows. Each member engaged in at least one subcommittee, bringing recommendations back to the overarching Surgical Safety Committee for review and approval.

Objectives

- Increase adherence to critical surgical protocols by standardizing consistent use of the Universal Protocol and Surgical Safety Checklist across all perioperative service lines.
- Reduce safety events and near misses by addressing identified gaps in workflow reliability and safety culture.
- Redesign and optimize key perioperative workflows to enhance process clarity, role accountability, and team communication.
- Engage frontline staff and physician champions to ensure that improvements are practical, collaborative, and aligned with clinical realities.
- Implement and validate recommended improvements through committee review, approval, and ongoing monitoring for effectiveness.

Preparation and Planning

- Launched a multidisciplinary initiative focused on evaluating and transforming current practices.
- Established six subcommittees to refine or redesign critical workflows
  - Safety Handoff
  - Structured Pre-brief
  - Anesthesia Regional Block/Central Line Timeout
  - Surgeon-led Surgical Timeout
  - Surgical Debrief
  - Surgical Counts and Counting process
- Each subcommittee reported on the progress and recommendations at the bi-weekly Surgical Safety committee meeting.

Assessment

Persistent systemic and cultural challenges continued to affect perioperative outcomes. Key contributing factors were identified which included inconsistent adherence to protocols-such as the Universal Protocol and Surgical Safety Checklist, often influenced by pressures to expedite patient throughput and reduce turnover times. These time constraints led to skipped or abbreviated safety checks and variability in clinical practices, while hierarchical dynamics and communication gaps made it difficult for team members to speak up when concerns arose. Additionally, despite clear policies and alignment with AORN guidelines, variability persisted in how surgical items were counted across the enterprise. Our aim is to create a high-reliability surgical environment by standardizing and strengthening surgical safety practices, reduce variability, improve protocol compliance, and foster a culture of shared accountability and open communication.

Implementation

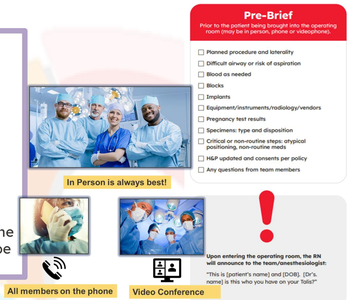
IntraOperative Pre-Brief

A pre-brief will be performed prior to the patient entering the operating room.

- May be in person,
- On the phone,
- Or videoconference

All members of the team must be present for all modalities.

The team is represented by the Surgeon, the Anesthesiologist, the Nurse, and the Surgical Tech at minimum. Other members can be included.



Pre-Op Handoff

Emphasis on Face-to-Face Handoffs.

Procedural RN contacts PreOp RN on arrival to receive report.

PreOp RN completes current task and prepares to give *verbal* handoff when procedural RN arrives.

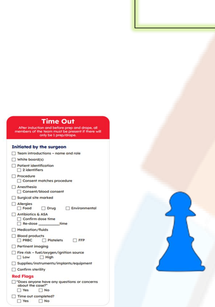
- Procedural RN and PreOp RN meet at bedside for handoff to discuss patient history and confirm required documents are completed.
- Safety handoff form is reviewed.
- Documentation checklist is completed.

Hardstops

We implemented a process where nurses had a hard stop if any of the identified items were missing, they were not able to proceed the OR.

This is a HARD-STOP and cannot move forward without these items:

- Pre-Anesthesia Assessment
- Anesthesia Consent (No abbr)
- Updated H & P (within 24 hr)
- Surgical Consent (No abbr)
- Site Marking



Anesthesia Timeout

The anesthesia time-out takes place before any blocks or central line insertions are performed.

- Prior to performing a block an RN and Anesthesiologist will do a TIME OUT
- Surgical consent and anesthesia consent form will be used to verify site of the block.
- An addendum will be added under "other" to the Anesthesia consent form that includes:
  - Laterality
  - Site of Block
  - Type of Block

Laterality is confirmed in Preop using the surgery consent and patient/LAR confirmation

Procedural Timeout

All members of the procedural team actively participate in the Time Out as follows:

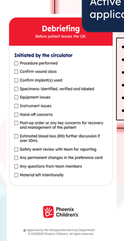
- Verify positive patient identification requiring at least two acceptable identifiers (Name & DOB)
- Verify allergies
- Name and role of each team member
- Verify site marking where applicable.
- Read out loud the procedure on the signed consent form.
- Antibiotics prior to incision
- Anticipated blood loss. Products required?
- Verify equipment, supplies,& implants
- Anticipated critical events

Debrief

At the end of the procedure before the patient leaves the room (debriefing). If multiple procedures, each surgeon will perform their own debrief.

Active participation of all team members for verification of applicable elements:

- Counts correct
- Procedure(s) completed
- Validation of wound class
- Validation of specimen(s) identified and disposition
- Identification of post-operative concerns
- Identification of instrument or equipment concerns



Children and families are at the center of all we do!

Advancing hope and healing

Outcome

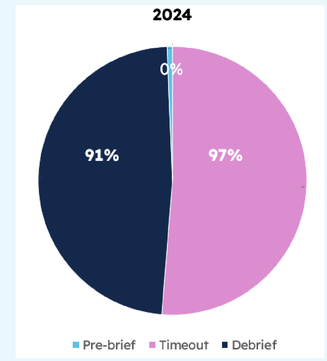


Figure 1: 2024 Overall, percentage of fully compliant audits N = 3443

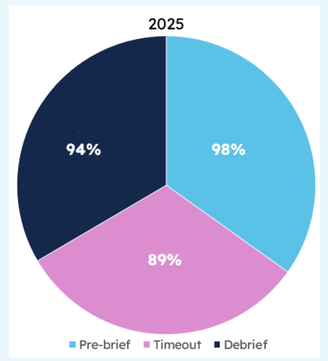


Figure 2: 2025 Overall, percentage of fully compliant audits N = 2501

Conclusions

To enhance surgical safety; multiple standardized processes were implemented across the perioperative continuum. A structured pre-brief was introduced using a multimodal format to promote flexibility and multidisciplinary engagement; as this is a new initiative, outcome data were not available for 2024. Face-to-face safety handoffs were reinforced to support continuity of care and ensure verification of critical documentation.

A renewed emphasis was placed on surgeon-led procedural timeouts with full team presence and active participation. Although 2025 data demonstrated a decrease in the percentage of fully compliant timeouts, this is attributed to the adoption of a standardized auditing methodology that more accurately identifies gaps in practice.

Additionally, a standardized timeout process for regional blocks and central line insertions was implemented in collaboration with anesthesiology, incorporating a challenge-response format to ensure verification of key safety elements.

Future Implications

Our transformation journey is vital because it illustrates how a culture of safety isn't achieved through policy alone—it requires deliberate, collective action. By embedding standardized safety practices across the surgical continuum and empowering every team member to participate in a shared commitment to excellence, we are moving toward a high-reliability surgical environment. Sharing our experience contributes to a broader conversation in perioperative care, demonstrating how targeted, collaborative strategies can lead to measurable improvements in patient outcomes and team performance.

Acknowledgements

Many thanks to all the staff members and leadership who participated in this clinical improvement initiative. Wit the collaboration from Surgeons, Anesthesiologists, front line staff, leadership, and Clinical Education Specialists we are helping to lead the way to a more highly-reliable and clinically safe perioperative unit.

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