Application of Crew Resource Management to Reduce Retrained Surgical Items by Inclusive Team Communication

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Problem Identification

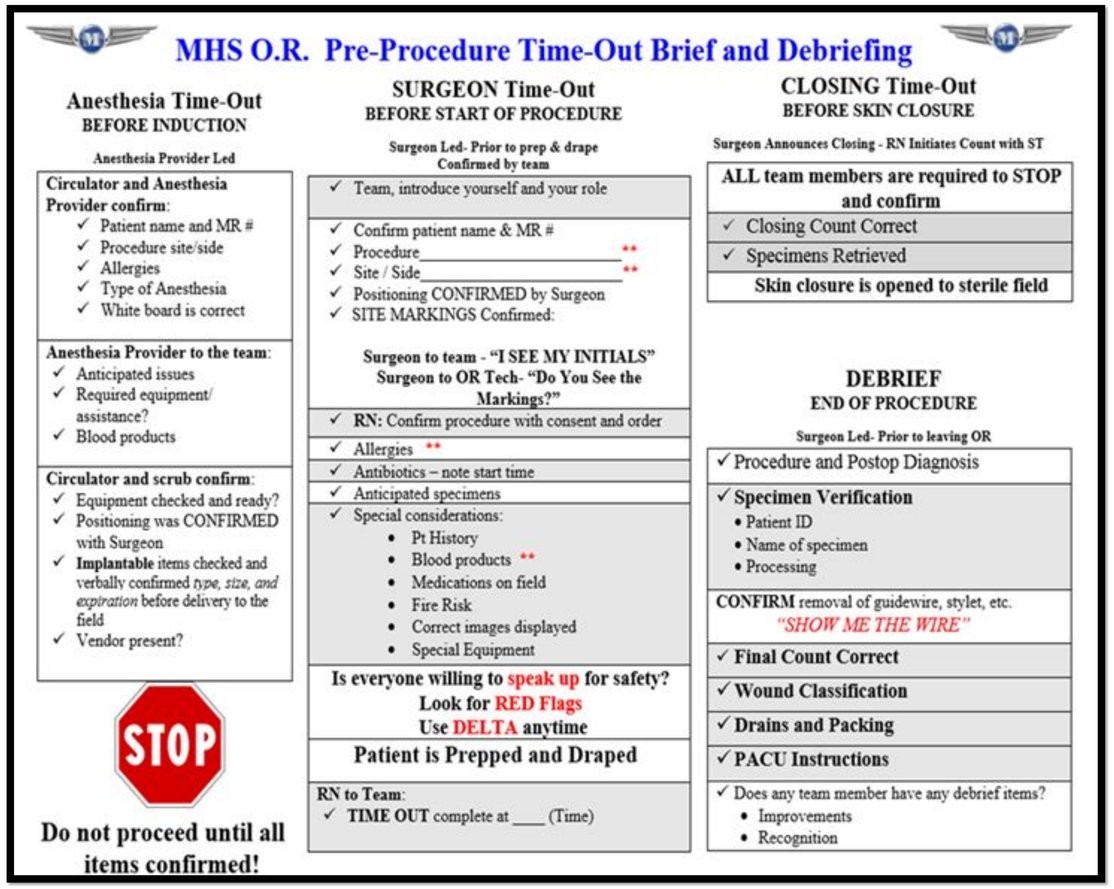
- Retained surgical items (RSIs) are **preventable sentinel events** that can occur during the perioperative period and threaten patient safety.
- RSIs are commonly associated with **communication failures and human factors**, including distractions, workflow interruptions, and inconsistent information exchange.
- **Hierarchy and low psychological safety** can create barriers to speaking up, even when concerns are recognized.
- Hesitancy to voice concerns may be influenced by **unconscious bias, cultural differences, intimidation, or role-based power dynamics**, which can delay escalation of discrepancies.
- AORN emphasizes the importance of **effective team communication** and practices that support **RSI prevention**, including standardized processes and reliable communication across the perioperative team (Cochran, 2022)
- **Structured hand-off protocols** support safer transitions and reduce the risk of miscommunication during critical perioperative moments (Spruce, 2024)
- This project aimed to strengthen **team communication, inclusion, and situational awareness** by applying **CRM principles** to reduce RSI risk.

Purpose Statement

- Explain how Crew Resource Management improves team communication and reduces RSIs.
- Discuss methods for creating an inclusive, psychologically safe perioperative team climate.
- List relevant AORN Guidelines that support RSI prevention and inclusive communication methods.

Preparation, Planning, Assessment, implementation, and Team Description

- Multidisciplinary perioperative team involved: nurses, surgeons, surgical technologists, and anesthesia providers, collaborated to examine current communication challenges in the OR.
- The team conducted structured conversations and informal debriefs with staff to identify day-to-day barriers to speaking up.
- Based on these discussions, a gap analysis was performed in alignment with the AORN Guideline for Team Communication (Link, 2018) and the Guideline for Prevention of Retained Surgical Items (Cochran, 2022).
- A gap analysis is a structured approach for comparing current practices with desired standards to determine deficiencies and necessary changes.
- These staff conversations revealed: counting practices were technically compliant, novice team members often hesitated to voice concerns about discrepancies.
- Crew Resource Management (CRM) training was introduced to promote inclusive communication, reduce hierarchy, and enhance situational awareness.



MHS O.R. Pre-Procedure Time-Out Brief and Debriefing

Anesthesia Time-Out
BEFORE INDUCTION

Anesthesia Provider Led

Circulator and Anesthesia Provider confirm:
- ✓ Patient name and MR #
- ✓ Procedure site/side
- ✓ Allergies
- ✓ Type of Anesthesia
- ✓ White board is correct

Anesthesia Provider to the team:
- ✓ Anticipated issues
- ✓ Required equipment/ assistance?
- ✓ Blood products

Circulator and scrub confirm:
- ✓ Equipment checked and ready?
- ✓ Positioning was CONFIRMED with Surgeon
- ✓ **Implantable** items checked and verbally confirmed *type, size, and expiration* before delivery to the field
- ✓ Vendor present?

STOP

Do not proceed until all items confirmed!

SURGEON Time-Out
BEFORE START OF PROCEDURE

Surgeon Led- Prior to prep & drape Confirmed by team

- ✓ Team, introduce yourself and your role
- ✓ Confirm patient name & MR #
- ✓ Procedure_____ **
- ✓ Site / Side_____ **
- ✓ Positioning CONFIRMED by Surgeon
- ✓ SITE MARKINGS Confirmed:

Surgeon to team - "I SEE MY INITIALS"
Surgeon to OR Tech- "Do You See the Markings?"

- ✓ **RN:** Confirm procedure with consent and order
- ✓ Allergies **
- ✓ Antibiotics – note start time
- ✓ Anticipated specimens
- ✓ Special considerations:
  - Pt History
  - Blood products **
  - Medications on field
  - Fire Risk
  - Correct images displayed
  - Special Equipment

Is everyone willing to speak up for safety?
Look for RED Flags
Use DELTA anytime

Patient is Prepped and Draped

RN to Team:
- ✓ **TIME OUT** complete at ____ (Time)

CLOSING Time-Out
BEFORE SKIN CLOSURE

Surgeon Announces Closing - RN Initiates Count with ST

ALL team members are required to STOP and confirm
- ✓ Closing Count Correct
- ✓ Specimens Retrieved

Skin closure is opened to sterile field

DEBRIEF
END OF PROCEDURE

Surgeon Led- Prior to leaving OR

- ✓ Procedure and Postop Diagnosis
- ✓ **Specimen Verification**
  - Patient ID
  - Name of specimen
  - Processing
- **CONFIRM** removal of guidewire, stylet, etc. *"SHOW ME THE WIRE"*
- ✓ **Final Count Correct**
- ✓ **Wound Classification**
- ✓ **Drains and Packing**
- ✓ **PACU Instructions**
- ✓ Does any team member have any debrief items?
  - Improvements
  - Recognition

Hand-Off Tools

Implications for Perioperative Nursing

- Implementing **Crew Resource Management (CRM)** principles aligned with **AORN guidance** enhanced team inclusivity and strengthened perioperative communication (Link, 2018).
- Building a culture that **values every voice** reduced psychological barriers to speaking up and supported earlier escalation of safety concerns (Link, 2018).
- **Implications for Perioperative Nursing:** Empowering staff to speak up directly supports the perioperative nurse's role as a **patient advocate and safety leader**, promoting safer, more reliable teamwork in the OR (Link, 2018).
  - Initial and Annual Review of CRM is reviewed with every staff member.
  - Review of roles and responsibilities of each team member

Outcome

- Employee conversations revealed improvements after introducing CRM strategies.
- Revisions to Crew Board: Closing Time out included to verify closing count, after closing count is correct, skin stitch is then opened to the field.
- Staff reported feeling more comfortable speaking up, and team interactions became more respectful and collaborative.
- Many team members felt more included in discussions and more empowered to point out inconsistencies during the surgical count.
- Leaders observed: an increase in near-miss reporting, reflecting greater vigilance and engagement.

References

FIGHT THE UNFAIR