

## BACKGROUND

Compliance with infection prevention and surgical safety practices is critical in perioperative care. Traditional didactic and asynchronous education methods were found insufficient for reinforcing AORN Guidelines, particularly those addressing environmental cleaning, surgical attire, and prevention of transmissible infections. To bridge this gap, an innovative, interactive approach was developed to engage multidisciplinary perioperative teams.

## OBJECTIVES

- Improve staff competency in applying AORN Guidelines during real-time scenarios through targeted education and simulation.
- Strengthen interdisciplinary collaboration and teamwork in the OR with structured communication and team-building strategies.
- Boost engagement and knowledge retention using gamification and experiential learning.

FIGURE 1



Team photo after successfully escaping!

**"Today's in-service was so engaging. The escape room was a great idea!"**

-Surgical Technologist Participant

## METHODS

A multidisciplinary team of perioperative educators, infection prevention specialists, and quality experts designed an intraoperative escape room.

Development Included:

- **Audit and Needs Assessment:** Identified knowledge gaps through review of compliance data and staff learning needs.
- **Collaborative Planning:** Defined clear objectives through interdisciplinary input.
- **Puzzle Design:** Created challenges requiring application of institutional policies, infection control principles, and AORN guidelines.
- **Implementation:** Engaged perioperative staff from multiple sites and specialties. Pre- and post-intervention surveys measured knowledge gains and participant satisfaction.

## RESULTS

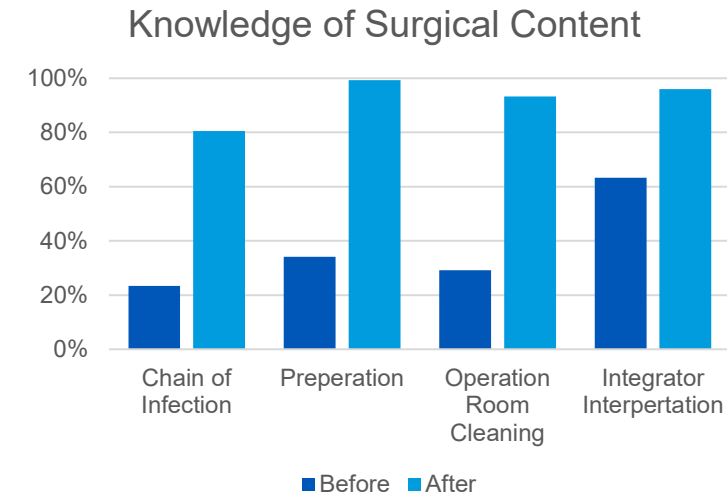
- Knowledge significantly improved across all identified gaps, as illustrated in Figure 3
- 65% increase in knowledge related to alternative preparation methods for patients with iodine allergies
- 154 staff members participated over a 6-month period
- 9 campuses engaged, including a Level 1 trauma center and multiple critical access hospitals
- 6 perioperative roles involved: Circulating Registered Nurses, Surgical Technologists, Surgical Assistants Sterile Processing Technicians, Anesthesia Providers, Perioperative Assistants

FIGURE 2



Integrator interpretation puzzle

FIGURE 3



- Strengthened correlation between infection prevention protocols and surgical safety practices, ensuring consistent adherence to best standards.
- Enhanced teamwork and recognition of unique skillsets of professionals within the operating room and sterile processing area.
- Achieved high participant satisfaction through an interactive format that effectively translated guidelines into practical application.
- Enabled inclusive participation across all subspecialties, including Urology, Gynecology, Orthopedics, Ophthalmology, and more.

FIGURE 4



Collecting the next clue in the suction container.

## CONCLUSIONS

Experiential learning through gamification offers a valuable approach to perioperative education. The intraoperative escape room successfully integrated AORN Guidelines into an engaging, team-based training format, promoting clinical excellence and patient safety. This innovation demonstrates the potential for interactive strategies to reinforce evidence-based practices and improve compliance.

Want to try it yourself?  
Check out our outline version here to do it yourself!



**Donning Personal Protective Equipment**

- AORN Guideline: Transmission Based Precautions

**Skin Preparation**

- AORN Guideline: Patient Skin Antisepsis

**Maintain Patient Normothermia**

- AORN Guideline: Patient Temperature Management

**Blood and Body Fluid Exposure**

- AORN Guideline: Transmission Based Precautions

**Sterile Pack Analysis Guidelines**

- AORN Guideline: Sterilization

**Integrator Integrity**

- AORN Guideline: Sterilization

**Instrument Integrity**

- AORN Guideline: Instrument Cleaning

**DoFFing Personal Protective Equipment**

- AORN Guideline: Transmission Based Precautions

**Hand Hygiene Moments**

- AORN Guideline: Transmission Based Precautions

**Environmental Cleaning**

- AORN Guideline: Environmental Cleaning



Any Questions? Scan the QR code to send us an email at [nelson.nicole5@mayo.edu](mailto:nelson.nicole5@mayo.edu).