



AORN Recommends 3 Strategies to Strengthen Fire Safety Planning in the OR

(Denver, Colo.) October 2, 2014 -- October 5th begins Fire Prevention Week. For most ORs across the country, this is the time of year for fire safety drills and education—excellent steps toward preventing surgical fires. Yet, 550–650 surgical fires still occur annually in procedural environments where the three elements of the fire triangle come together:

- oxygen-enriched atmosphere
- ignition source (such as electrosurgical equipment—the most common ignition sources of surgical fires—and lasers)
- fuel (such as alcohol-based surgical prepping solutions)

In the operating room, the perioperative nurse is the fire department. “Surgical team members should use Fire Safety Prevention week as an opportunity to critically evaluate their fire safety education and processes,” suggests Charlotte Guglielmi, MA, BSN, RN, CNOR, perioperative nurse specialist at Beth Israel Deaconess Medical Center in Boston and past president of the Association of periOperative Registered Nurses (AORN).

“It’s not just about drilling to know your role in what to do should a fire occur, it’s about speaking up and recognizing risks to prevent fire,” she stresses. “Maybe the electrocautery pencil does not sit properly in its holster, or perhaps colleagues are succumbing to production pressures to work faster and not allowing appropriate drying time for alcohol prepping solutions—it’s the responsibility of every team member to be vigilant and speak up when they see fire risk.”

A Stronger Stand on Fire Awareness

Prevention is the ultimate goal for fire safety. AORN continues to work closely with perioperative care providers, organizations, and federal agencies across many different specialties to discuss and shape fire safety tools and education in the hope that someday the number of surgical fires will be zero.

“We as a broad perioperative community see the value in bringing together multidisciplinary teams to apply safety approaches, such as high reliability that have been proven to increase safety in other industries,” Guglielmi explains.

She adds, “Perioperative nurses realize the value of breaking down silos when it comes to surgical team education and action around safety processes—fire safety is a prime example of how optimal outcomes are achieved when we include our professional partners in an evidence-based, team approach to fire prevention.”

High Reliability: A New Context for Fire Prevention

Guglielmi says the principles of high reliability are a good fit to use in tackling a safer approach to fire prevention. For example:

High Reliability Principles	Fire Prevention Context
Preoccupation with failure	Be aware in any procedural scenario where an element of the fire triangle is present and fire can occur.
Reluctance to simplify	Reject the idea that fire is rare and it can’t happen on your watch.
Sensitivity to operations	Be cautious of factors such as rapid turnover time, which can lead to overlooking fire risk assessment and fire prevention practices.
Commitment to resilience	Be committed to the belief that you are the patient’s protector and are responsible for doing everything in your power to protect a patient from fire.
Deference to expertise	Call for multidisciplinary education and collaborative teamwork to address fire safety in a comprehensive way that includes a wide range of expert perspectives.

The October issue of *AORN Journal* includes an open access link to a “Table Talk” series article on fire safety shaped by Guglielmi that asks six fire safety stakeholders one question:

If we believe that a high-reliability program is critical to the OR environment, what do you believe that surgical teams must do over the next several years to manage and prevent surgical fires?

Perioperative nurses should consider these three strategies from responses in the article to begin strengthening their fire safety program:

1: Bring together a multidisciplinary team of fire safety stakeholders

Training must embrace every team member who takes part in surgery or in the maintenance and repair of the OR or procedure room and its equipment, including nursing personnel, surgeons, and anesthesia professionals, as well as technicians, residents, assistants, students, radiographers, perfusionists, engineers, and environmental services personnel.

2: Think about fire safety in the context of high reliability to tackle the systematic and non-systematic causes for surgical fires

To mitigate systematic fire risk in the surgical setting be attentive to:

- the condition of the OR or procedure room
- potential sources of ignition
- flammable materials
- the overall condition of the equipment

To mitigate non-systematic risks:

- evaluate the patient and the procedure to determine the sources of increased risk at the time of surgery
- mitigate the risk factors on the spot

Step 3: Make fire prevention part of daily discussion

- Build a fire risk assessment and risk-reduction strategies into preoperative briefings.
- Include fire risks in postoperative debriefings to raise awareness of fire prevention and use near-miss events as educational opportunities.
- Consider regular education for fire safety that is multidisciplinary.

“Just as members of the surgical team have different approaches and concerns related to a surgical procedure, they also each have unique perspectives and roles in protecting patients from surgical fire,” Guglielmi stresses. “Surgical teams MUST take a collaborative, systematic approach if they are going to master fire prevention and be able to truly say they have a fire safety plan in place for every patient, every time.”

Fire Safety Resources

AORN Journal article

[link: [http://www.aornjournal.org/article/S0001-2092\(14\)00881-3/abstract](http://www.aornjournal.org/article/S0001-2092(14)00881-3/abstract)]

FDA Preventing Surgical Fires website

[Link: <http://www.fda.gov/Drugs/DrugSafety/SafeUseInitiative/PreventingSurgicalFires/default.htm>]

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