

ASPR TRACIE Technical Assistance

Request Receipt Date (by ASPR TRACIE): April 27, 2017

Response Date: May 5, 2017; updated August 11, 2022; links checked March 21, 2023

Type of TA Request: Standard

Request:

The requestor asked for a template of a hazard assessment for surgical fires.

Response:

The ASPR TRACIE team researched relevant resources specific to hazard assessment for surgical fires and reached out to our Subject Matter Expert (SME) Cadre. Section I in this document includes the responses from our SME Cadre members and Section II provides additional resources that may be helpful for this request.

Section I: SME Comments

Please note: These are direct quotes or paraphrased comments from emails and other correspondence provided by ASPR TRACIE SME Cadre members in response to this specific request. They do not necessarily express the views of ASPR or ASPR TRACIE.

There are many different types of “Fire Risk Assessment” forms available. Attached are three versions: (1) one from Russell Phillips & Associates (RPA), (2) Children’s Hospital Boston, and (3) Association of Perioperative Registered Nurses (AORN).

The basics are to ensure four (4) important questions are being asked by the entire surgical team (all surgical members **MUST** be in the room at the time of the questions).

- Is open delivery of oxygen being administered?
- Is a heat device being used (laser, bovie, etc.)?
- Is the location of the surgery above the xiphoid process?
- Is alcohol-based prep solution being used?

As seen with the attached versions, there are many different formats used. The AORN tool does a great job highlighting the questions, but also explaining ways to reduce the risk per each question. **NOTE:** Contact the [ASPR TRACIE Assistance Center](#) for a copy of the attachments.

Section II: Additional Resources

American Society of Anesthesiologists. (2013). [Fire Risk Assessment Protocol](#).

Healthcare workers can use this table and information to prevent and respond to fires in the operating room.

American Society of Anesthesiologists Task Force on Operating Room Fires. (2013). [Practice Advisory for the Prevention and Management of Operating Room Fires](#). *Anesthesiology*, V 118, No.2.

This article provides an update of the “Practice Advisory for the Prevention and Management of Operating Room Fires” as adopted by the American Society of Anesthesiologists in 2007. It provides the key concepts for operating room fire drills, fire prevention, and management of fires.

Anesthesia Patient Safety Foundation. (2010). [Operating Room Fire Safety Video](#).

This 18-minute video is geared towards operating room staff and covers the prevention and management of operating room fires.

Christiana Care Health System. (n.d.). [Surgical Fire Risk Assessment](#). (Accessed 3/21/2023.)

This site provides free materials that are available for fire safety and risk assessment planning. Sample materials include fire assessment, fire risk presentation, procedures, checklists, etc. Christiana Care Health System has developed their own fire risk assessment score.

Council on Surgical & Perioperative Safety. (2020). [Resources and Tools for Preventing Surgical Fires](#).

This webpage includes links to articles and advisories related to surgical fires, educational programs, risk assessment tools, and fire codes relevant to healthcare facilities.

Cowles, C., Lake, C., and Ehrenwerth, C. (2020). [Surgical Fire Prevention: A Review](#). *Anesthesia Patient Safety Foundation*. 35(3).

The authors highlight causes and effects of surgical fires along with the revised operating room fire prevention algorithm geared towards prevention operating room fires.

Dennison, D. (2009). [Fire Safety Tool Kit: Fire Prevention Assessment Protocol](#).

This list of interventions aligns with the fire prevention assessment protocol; it is geared towards registered nurses who work in the operating room.

Lippincott Nursing Center. (2018). [Preventing Surgical Fires](#).

This site provides recommendations on fires that commonly occur in electrosurgical units with focus on flammable pharmaceutical products and ways to evaluate products in preventing fires.

Mathias, J. (2006). [Scoring Fire Risk for Surgical Patients](#). OR Manager, Vol. 22, No. 1.

This article provides an overview of the key elements that may cause a fire, and how to assess risk of fire in an operating room. It provides a sample risk assessment guide from the Christiana Care Health System.

Patient Safety & Quality Healthcare. (2018). [FDA Issues Recommendations to Prevent Surgical Fires](#).

Healthcare workers can implement these recommendations to prevent surgical fires and protect patients.

The Joint Commission. (2003). [Sentinel Event Alert 29: Preventing Surgical Fires](#).

This alert provides actions to take in preventing surgical fires along with strategies and recommendations to reduce risks and prevent injury to patients.

US Food and Drug Administration. (2012). [Practical Advice for Preventing Surgical Fires: Safety Strategies from the Front Lines](#).

This PowerPoint presentation provides an overview of hospital experiences, best practices, and mitigation strategies to adopt in surgical fire risk reduction practices within healthcare settings.