ASPR TRACIE Technical Assistance

Requestor: Redacted
Request Receipt Date (by ASPR TRACIE): April 27, 2017
Response Date: May 5, 2017, updated August 11, 2022
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 also reached out to our Subject Matter Expert Cadre. Section I below includes the responses back from our SME Cadre members and Section II includes additional resources that may be helpful for you.

Section I: SME Comments

There are many different types of “Fire Risk Assessment” forms out there. 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 you can see with the attached versions, there are many different formats used. Take a closer look at the AORN tool. It does a great job highlighting the questions but also explaining way to reduce the risk per each questions.

Section II: Additional Resources


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

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 OR fire drills, fire prevention, and management of fires.

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

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.

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

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

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

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.

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.

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


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


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.