

# OR Fire Prevention Algorithm

Start Here

**Is patient at risk for surgical fire?**

Procedures involving the head, neck and upper chest (above T5) *and* use of an ignition source in proximity to an oxidizer.

NO

**Proceed, but frequently reassess for changes in fire risk.**

Nurses and surgeons avoid pooling of alcohol-based skin preparations and allow adequate drying time. Prior to initial use of electrocautery, communication occurs between surgeon and anesthesia professional.

YES

**Does patient require oxygen supplementation?**

NO

**Use room air sedation.**

YES

**Is >30% oxygen concentration required to maintain oxygen saturation?**

NO

**Use delivery device such as a blender or common gas outlet to maintain oxygen below 30%.**

YES

**Secure airway with endotracheal tube or supraglottic device.**

Although securing the airway is preferred, for cases where using an airway device is undesirable or not feasible, oxygen accumulation may be minimized by air insufflation over the face and open draping to provide wide exposure of the surgical site to the atmosphere.

The following organizations have indicated their support for APSF's efforts to increase awareness of the potential for surgical fires in at-risk patients: American Society of Anesthesiologists, American Association of Nurse Anesthetists, American Academy of Anesthesiologist Assistants, American College of Surgeons, American Society of Anesthesia Technologists and Technicians, American Society of PeriAnesthesia Nurses, Association of periOperative Registered Nurses, ECRI Institute, Food and Drug Administration Safe Use Initiative, National Patient Safety Foundation, The Joint Commission



Provided as an educational resource by the  
**Anesthesia Patient Safety Foundation**

Copyright ©2014 Anesthesia Patient Safety Foundation

[www.apsf.org](http://www.apsf.org)