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January 15, 2019

By email: [rs@dir.ga.gov](mailto:rs@dir.ga.gov)  
State of California  
Department of Industrial Relations  
Division of Occupational Health and Safety  
1515 Clay St., Suite 1901  
Oakland, California

**Re: Discussion Draft: Occupational Exposure to Surgical Plume**

Thank you for the opportunity for AORN to attend the November 8, 2018 Advisory Meeting regarding the Occupational Safety and Health Standards Board Petition 567 and the Division's draft regulations concerning occupational exposure to surgical plume.

AORN's evidence-based *Guidelines for Perioperative Practice* are published annually and provide the only evidence-based recommendations for patient and healthcare worker safety in the surgical setting. New in 2015, AORN's *Guideline for Surgical Smoke* documents the harmful effects of surgical smoke and the safety hazard it poses to patients and perioperative personnel and outlines recommendations for safe and cost-effective smoke evacuation. As the leading expert on the effects of surgical smoke, we appreciate your agency's attention to this safety concern and offer the following comments in response to the draft regulations discussed during the November meeting.

First, any surgical smoke evacuation requirement in California should apply equally to ASCs, as the safety hazards and harmful effects of surgical smoke exist in equal measure in the outpatient setting. The harmful effects exist for all procedures that generate smoke. In our view, agency time should not be spent considering whether there are certain surgical procedures that merit evacuation over others.

Most, if not all, hospitals and ASCs already have smoke evacuation equipment available for use in their operating rooms. There should not be a substantial cost to surgical services departments due to an evacuation requirement.

In AORN's national experience, surgical smoke evacuation can be accomplished by a simple hospital policy requiring evacuation for all planned procedures likely to generate smoke. In our view, listing devices that generate surgical smoke is not nearly as important as simply requiring use of the equipment *designed to capture* that smoke. In other words, a requirement to use the equipment is enough to protect health care workers and patients from the harmful effects of surgical smoke. There is not a need to measure the effectiveness of the equipment or the evacuation efforts as all evacuation devices, if used, are effective in smoke elimination.



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We also recommend clarifying the definition of “site of origin” to be clear that it is the site where smoke is being generated, not simply where tissue is altered (because tissue can be altered by a scalpel and not generate smoke).

As to the training and education piece, AORN and many organizations and manufacturers have ample resources available to surgical services departments and perioperative personnel. In our view, the training and education requirement need not be overly prescriptive, as surgical services leaders and nursing educators have ready access to implementation tools from a wealth of reputable sources. AORN, for example, has free evidence-based resources for facilities to increase awareness and implement an education and evacuation policy.

Again, we thank you for your attention to this important matter and your consideration. In addition to the many references listed in the AORN Guideline for Surgical Smoke, a new study published in the January 2019 issue of the International Journal of Health Sciences and Research documents the harmful effects of surgical smoke on operating room nurses in Turkey, enclosed for your reference.

I hope this is helpful. If you have any questions or require any additional documentation, please feel free to contact me directly at (303) 338-4891 or [ahader@aorn.org](mailto:ahader@aorn.org).

Sincerely,

**Amy L. Hader, JD**  
**AORN General Counsel**