A Proposal to Minimize Work Area Contamination during Induction

Elise M. Mecham, B.S., Harriet W. Hopf, M.D.*
* Department of Anesthesiology, University of Utah School of Medicine, Salt Lake City, Utah. harriet.hopf@hsc.utah.edu

CONTAMINATION of the anesthesia work area is common during intubation, when oral flora may be transferred by hands and equipment, and is associated with increased healthcare-associated infections.1,2 Frequent hand hygiene by anesthesia providers reduces healthcare-associated infections.1 Patient safety requires not turning away during intubation. Immediate glove removal and double gloving have been advocated to reduce contamination.3 We describe a comprehensive approach that may reduce workspace contamination without distracting from patient safety during a critical time.

Place clean intubating tools on a clean workspace. Repeat hand hygiene after patient contact (applying monitors) but before donning two pairs of gloves for induction. Place a clean towel on the patient’s chest or at a site easily reached. At the start of intubation, place the mask on the towel. As shown in the photo of an awake medical student model, as soon as the tube is in place, remove the outer gloves and place them on the towel. Then inflate the cuff, attach the circuit, and secure the tube. Move the towel and supplies to a workspace area designated for contaminated items. Perform hand hygiene and wipe down the work area.

We have not measured workspace contamination to show that this technique reduces it. However, we think this is a reasonable approach to maintaining focus on the patient and on infection control at a clinically critical time when there is a high potential for workspace contamination. Additional research to determine whether and to what degree this approach reduces workspace contamination is warranted.

The authors appreciate the assistance of Greg Wallace, M.D. (Resident, Department of Anesthesiology, University of Utah School of Medicine, Salt Lake City, Utah), in obtaining the photograph.

References
2. Loftus RW, Muffy MK, Brown JR, Beach ML, Koff MD, Corwin HL, Surgenor SD, Kirkland KB, Yeager MP: Hand contamination of anesthesia providers is an important risk factor for intraoperative bacterial transmission. Anesth Analg 2011; 112:98–105
3. Perry SM, Monaghan WP: The prevalence of visible and/or occult blood on anesthesia and monitoring equipment. AANA J 2001; 69:44–8