

Editor's Notes

You Are What You Breathe?

By *Stephen Jackson, M.D.*



Substance abuse and chemical dependence constitute significant and even life-threatening occupational hazards of anesthesiology. Personal lives and professional careers are ruined, and, indeed, death can be the final outcome. Rarely, the consequences can involve significant patient morbidity or even mortality. Our occupational hazard is a matter of international concern, having been reported in Canada, Great Britain, Ireland, Australia, New Zealand, France and Japan. This past year has witnessed several related events that have further intensified scrutiny of our specialty.

The first involved an impaired anesthesiologist who, in the state of Washington in 2002, administered a general anesthetic to an otherwise healthy young mother of three for a postpartum tubal ligation shortly after her delivery, and caused severe brain damage. The ensuing malpractice suit over an inappropriate removal from a ventilator while she still was paralyzed was settled for \$8.5 million. The anesthesiologist had had a long history of drug abuse (allegedly meperidine, and perhaps other drugs as well), and had been asked to leave both his practice group and hospital in Louisiana. It may have been that because he had not been officially fired, neither the group nor the hospital reported his aberrant behavior to the national data bank. Nor, apparently, did either entity indicate his drug abuse in their letters to the hospital in Washington from which the impaired anesthesiologist sought and ultimately received employment. But here's the newest and most practical twist pursuant to this tragedy: The Washington Hospital successfully sued both the Louisiana hospital *and* the impaired physician's former colleagues for failure to inform them of the impaired physician's history of substance abuse! The misrepresentation and omission of crucial information concerning the anesthesiologist's substance abuse by the Louisiana hospital and group was deemed to be a major cause of the patient's morbidity. **This should herald a new era of mandatory full disclosure of a history of impairment to any institution or employer seeking background information.**

The "Guidelines for the Ethical Practice of Anesthesiology"¹ is the only ASA document that is **binding** on all members. It contains several admonitions against behavior detrimental to patient care. In the section on anesthesiologists' ethical responsibilities to their medical colleagues (II.5), it is stated that "*anesthesiologists should advise colleagues whose ability to practice medicine becomes*

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temporarily or permanently impaired to appropriately modify or discontinue their practice.” In the following section, one on anesthesiologists' ethical responsibilities to the health care facilities in which they practice (III.1), it is stated that “*anesthesiologists should ... [make] good faith efforts to review the practice of colleagues ... for the benefit of the health care facility and all of its patients.*” And further (III.2), “*anesthesiologists share with all medical staff members the responsibility to observe and report to appropriate authorities any potentially negligent practices or conditions which may present a hazard to patients or health care facility personnel.*” And finally, in the section on anesthesiologists' ethical responsibilities to themselves (IV.2), “*the practice of quality anesthesia care requires that anesthesiologists maintain their physical and mental health and special sensory capabilities. If in doubt about their health, then anesthesiologists should seek medical evaluation and care. During this period of evaluation or treatment, anesthesiologists should modify or cease their practice.*”

But, now to the title of this editorial! Another fly in the ointment of our specialty's occupational hazard of substance abuse first appeared in 2005 in the obscure journal, *Medical Hypotheses*,² written by a team of physicians from the departments of psychiatry, surgery, pathology and anesthesiology, as well as engineers, at the University of Florida College of Medicine. The psychiatrist, Dr. Gold, is the most “credible” of these hypothesizers, whose contention is that “aerosolization of anesthetics administered intravenously in the operating room may be an unintended source of exposure” [for anesthesiologists]. In turn, the hypothesizers offer that this “second-hand” exposure “may lead to inadvertent sensitization [of anesthesiologists], which is associated with an increased risk for developing addiction” [to the intravenous anesthetic drugs]. This article received little notice. However, the follow-up publication appeared this year in the *Journal of Addictive Diseases*.³ It offered evidence that propofol and fentanyl were detected in the cardiac surgery operating room air, with the highest concentration being near the patient's mouth. This empirical finding fit nicely with the hypothesis that “second-hand opiate exposure can sensitize and change the brain, making substance abuse, dependence and behavioral disorders more likely” to occur in anesthesiologists, surgeons and other members of the operating room staff (nurses, perfusionists). The authors also offer this as an explanation for the challenges of absolute abstinence facing an anesthesiologist reentering the work force because they label the operating room as a “poisoned environment.”

Dr. Gold and associates do admit to their study's “limitations.” “We have gone from hypothesis to preliminary testing and back again with the hope of preventing problems that might come about because of exposure. We have not proved that exposure changes the brain or makes drugs of abuse more reinforcing. We have not demonstrated changes in animal models or

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anesthesiologists." Yet in the same limitations section, he espouses potentially draconian measures, such as opening all fentanyl vials under a hood, and more stringent regulation and purification of the operating room air, especially for surgeries involving extended length. Moreover, he extends his concerns of a drug-infested workplace to recovery rooms and intensive care units. A particularly pernicious consequence of this type of weak "science" is that it can serve as a basis upon which regulations (such as those of JCAHO and state and federal governments) and laws are imposed on the practice of our specialty.

The above-mentioned publications and an interview with Dr. Gold served as focal points for promulgation of a series of fright-provoking articles in *Men's Health* (entitled "The Junkie in the O.R."⁴) that sensationalized substance abuse among anesthesiologists. The harm to three patients injured by abusing anesthesiologists (one of whom was involved with two of these tragedies over a span of five years) is outlined in lurid detail. The diversion of narcotics from allegedly inadequately anesthetized patients, and awareness under anesthesia also are bundled inappropriately under the umbrella of the same scary theme. Moreover, attempts to enhance the "credibility" of this series involved out-of-context statements lifted from the writings of several of our specialty's most knowledgeable colleagues. This magazine series also was placed prominently in the public's eye by major news media conglomerates such as Fox News and its Web site.

In the above-cited articles there is, unfortunately, only a fleeting acknowledgement of what I believe and is generally accepted to be the most significant influences leading to chemical dependence in our specialty: stress, access to potent addictive drugs, misguided intellectual arrogance, personality disorders, genetic predisposition (nature), childhood environment (nurture), and comorbid diseases.

So, what are we to make of all this fanfare? In the long term, while we patiently and steadfastly adhere to the precepts of quality of care and ethical behavior in our clinical practices, only well-designed and executed scientific inquiry can provide answers to the vexing questions raised by the irresponsibility of the self-serving.

1. ASA Web Site, <http://www.asahq.org>.
2. McAuliffe P, Gold M, Bajpai L, Merves M, Frost-Pineda K, Pomm R, Goldberger B, Melker R, Cendan J. Second-hand exposure to aerosolized intravenous anesthetics propofol and fentanyl may cause sensitization and subsequent opiate addiction among anesthesiologists and surgeons. *Medical Hypotheses* 2006;66:874-882.
3. Gold M, Melker R, Dennis D, Morey T, Bajpai L, Pomm R, Frost-Pineda K. Fentanyl abuse and dependence: further evidence for secondhand exposure hypothesis. *J Addictive Diseases* 2006;25:15-21.
4. McDougall C. The Junkie in the O.R. *Men's Health*, November 2006.