

The Anesthesiology Community's Approach to Opioid- and Anesthetic-abusing Personnel

Time to Change Course

IN this issue of ANESTHESIOLOGY, Bryson and Silverstein¹ provide an excellent detailed summary of addiction and substance abuse among anesthesiologists, and a review of "state-of-the-art" theories on the mechanisms of addiction, as well as recognition, intervention, treatment, and aftercare of addicted caregivers. Their thoughtful review once again reminds us that anesthesiology, as a specialty, has made a sincere and earnest effort to diminish substance abuse and addiction within its ranks through education and the creation of ever more intrusive and cumbersome drug-dispensing and -control mechanisms. While new information is continually emerging on these issues, it is apparent from the authors' analysis that despite multiple programmatic efforts, there has been little, if any, positive impact on the specialty-wide incidence of substance abuse and addiction. Deaths from opioid abuse continue, and additional reports of deaths from nonopioid anesthesia-related drugs (such as propofol or inhalational anesthetic abuse)^{2,3} periodically appear.

Although the drugs most commonly abused by the general population are nicotine and alcohol, multiple studies have shown that the drugs of abuse for which most anesthesia providers enter chemical dependency treatment are the potent opioids, with alcohol following far behind.⁴ The rate of abuse of other anesthesia-related drugs is largely unknown. Anesthesiologists clearly present a skewed subset of the general population, and there is no question that they get in trouble with very dangerous and often rapidly lethal drugs. Further, anesthesiologists abuse these highly potent drugs more than other physicians.⁵

In the United States, considerable efforts have been made to reduce the incidence of drug diversion by anesthesia practitioners through the implementation of systems such as those mentioned in the Bryson and Silverstein discussion. However, at Mayo Clinic, Rochester, Minnesota, the Department of Anesthesiology has carried these systems a step further. While Bryson and Silverstein use a *qualitative* random assay of returned waste in their own practice, Mayo Clinic uses a more

expensive *quantitative* assay of randomly selected returned narcotic samples in conjunction with the other methods the authors describe (e.g., computer charting and Pyxis machine [Cardinal Health, Dublin, OR] drug-dispensing records). Division of Pharmacy personnel rigorously review all available data and, in concert with a representative of the Department of Anesthesiology Chemical Abuse Committee, relentlessly investigate any apparent discrepancies in charting or variations from typical practice patterns. For such a system to be effective, there must be excellent cooperation between the Division of Pharmacy and Department of Anesthesiology to support the auditors in order to avoid "us-against-them" conflicts. In every instance of suspected narcotic diversion, all waste narcotic returned by the individual in question is assayed until diversion is either confirmed or disproved. With this system in place, Mayo Clinic has seen its rate of recognized diversion of narcotics—in a department that has a combined population of some 475 staff anesthesiologists, residents and fellows, nurse anesthetists, and nurse anesthesia students—decrease from approximately one incident per year for many years to one incident in the past 7 yr. Having said that, we understand that there will continue to be practitioners who divert anesthesia-related drugs for their personal use, and we suspect that at Mayo Clinic Rochester, the problem is simply in remission, not cured. We are hesitant to suggest that this system change is solely responsible for the apparent decrease in diversion, although we are cautiously optimistic that the trend will continue.

One issue not addressed by Bryson and Silverstein is that other anesthesia care providers (e.g., nurse anesthetists, sedation nurses) are at similar, if not increased, risk of addiction simply because their practices are often in remote settings, and they may not fully appreciate the risks of a first-time experiment with diverted anesthetic drugs. Unfortunately, there is very limited comment in the literature on this topic. However, one of us (K.H.B.) frequently lectures to large nurse anesthesia groups on this problem, and in response to the question, "Who here has lost a friend or colleague to narcotic addiction?" nearly every hand in the audience will go up. The American Association of Nurse Anesthetists has an active support line in an effort to help with the recognition and appropriate handling of drug diversion, and the death of a former American Association of Nurse Anesthetists president to a fentanyl overdose in 2002 makes the point vividly clear that abuse of diverted anesthetic drugs does not choose its victims by the letters after their names.

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What is the risk to the patient posed by a narcotic-addicted caregiver? Here the literature is relatively silent. Certainly none of us having a surgical procedure would desire our anesthesia caregiver to have just self-administered a narcotic, especially if it were prescribed and intended for us. Bryson and Silverstein state that one method of diverting is to substitute β -adrenergic blocking drugs for narcotics. Who among us would care to awaken from an anesthetic with a nice slow heart rate but inadequate analgesia?

The thorniest question posed to those who must deal with identified drug abusers or narcotic-dependent individuals is what to do with them once they emerge from their treatment program. For the past many years, there seems to have been a national consensus that narcotic-dependent anesthesia personnel in recovery should be allowed to return to the practice of operating room anesthesia in a closely monitored setting. This also has been the policy of the Mayo Clinic Department of Anesthesiology, and generally this is the recommendation of the addiction medicine and psychiatric caregivers when they release the addicted anesthesia personnel back to the administrative responsibility of their employers. Certainly the passage of the Americans with Disabilities Act further created the impression that return to practice with reasonable accommodation is the only choice in this setting; at least this was the impression immediately after enactment of the Act (Jill Beed, J.D., Legal Counsel, Mayo Clinic, Rochester, Minnesota, personal verbal communication, July 23, 2008). Although, as noted by Bryson and Silverstein, case law and legislative acts over the years have refined the implications of the Americans with Disabilities Act regarding substance use disorders, considerable ambiguity still exists in this area.

We recommend another approach: We believe that, specifically in the case of an individual who has become addicted to or is abusing self-administered anesthetic drugs and supplements (e.g., opioids, benzodiazepines, inhalational anesthetics), it is high time for our specialty to undergo a fundamental reconsideration of our policies. We believe that a default "one strike, you're out" policy should replace the current default position of assuming a return to the workplace. We propose this for several reasons. First, neurobiologic research has revealed that addiction is a disorder of the brain's reward system, which alters behavioral drives that are under limited conscious control. Decision making is damaged by addiction so that abstinence is not simply a choice. Indeed, Gastfriend dubs addictive disease as "a brain disease that subverts self-preservation."⁶ Returning to the operating room (or other anesthesia practice settings) places the anesthetic abuser or opioid addict at high risk for relapse. Second, a pragmatic review of our personal experience with our Mayo Clinic nurse anesthetists who have become addicted to narcotics, successfully completed treatment, and returned to the

workplace (approximately 12 over the past 20 yr) leads us to believe that there has been a nearly 100% relapse rate (K.H.B. and Mary E. Marienau, C.R.N.A., Coordinator of Mayo School of Nurse Anesthesia, Rochester, Minnesota, personal verbal communication, October 2007). It is difficult to exactly quantify the relapse rate, because far too often affected individuals are simply lost to formal follow-up, and word filters back through acquaintances of multiple relapses, job changes, and in some cases deaths. In the case of other categories of addicted anesthesia caregivers at our institution (e.g., residents and student registered nurse anesthetists who went on to complete their training), although we are aware of some relapses, too many have been lost to follow-up to draw any conclusions. Third, the study by Menk *et al.*⁴ in 1990 showed that nearly two thirds of parenteral opiate-addicted anesthesiology residents who return to their training program relapse, and in 16% of these cases death was the initial clinical presentation of relapse. Abusers of diverted inhaled potent anesthetics seem to fare no better.⁵ With two recent studies of narcotic addiction among anesthesia residents showing the death rate with relapse ranging from 9% to 31%,^{7,8} we question the wisdom of the current approach to allow known addicts to return to the workplace and the daily temptation of access to addictive drugs. Bitter experience over the years suggests that returning those addicted to or abusing anesthesia-related drugs to the operating room work environment puts bright, talented young people at an unnecessary risk of premature death.

We suggest that anesthesia caregivers who have become addicted to or abuse anesthetic drugs and supplements should be directed toward lower-risk occupational environments, either within medicine or in a different field entirely. We fully understand that we will be criticized for advocating what many will see as a draconian stance, but we believe it is high time that this issue is thrashed out in public debate. Some will say, "Show us the data to support the contention that addicts redirected to other professional domains with less access to narcotics and anesthetics will have a lower relapse and death rate." Such data do not exist, and most likely never will exist. Here, an element of pragmatism might stand us in good stead, similar to that exhibited in the *BMJ* article in 2003 which rather famously challenged the contemporary blind allegiance to randomized controlled trials by proposing (tongue-in-cheek) that such a study be conducted to assess the efficacy of parachutes in preventing injury after individuals jump out of airplanes.⁹ Sometimes we do not need time-consuming prospective studies (which, during their completion, place even more individuals at risk) to do the right thing; sometimes the issue speaks for itself: *res ipsa loquitur*.

It is time we as a specialty stop—or at least revisit—this practice of returning narcotic- or anesthetic-abusing or addicted anesthesia caregivers to the operating room environment. Removing the proven at-risk healthcare

providers from the high-risk operating room environment should not be based on concerns for political correctness, but instead on concerns that a return to practice carries with it a significant likelihood of death or permanent disability of professionals during the most productive years of their lives.

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References

1. Bryson EO, Silverstein JH: Addiction and substance abuse in anesthesiology. *ANESTHESIOLOGY* 2008; 109:905-17
2. Wischmeyer PE, Johnson BR, Wilson JE, Dingmann C, Bachman HM, Roller E, Tran ZV, Henthorn TK: A survey of propofol abuse in academic anesthesia programs. *Anesth Analg* 2007; 105:1066-71
3. Wilson JE, Kiselanova N, Stevens Q, Lutz R, Mandler T, Tran ZV, Wischmeyer PE: A survey of inhalational anaesthetic abuse in anaesthesia training programmes. *Anaesthesia* 2008; 63:616-20
4. Menk EJ, Baumgarten RK, Kingsley CP, Culling RD, Middaugh R: Success of reentry into anesthesiology training programs by residents with a history of substance abuse. *JAMA* 1990; 263:3060-2
5. Domino KB, Hornbein TF, Polissar NL, Renner G, Johnson J, Alberti S, Hanks L: Risk factors for relapse in health care professionals with substance use disorders. *JAMA* 2005; 293:1453-60
6. Gastfriend DR: Physician substance abuse and recovery: What does it mean for physicians—and everyone else? *JAMA* 2005; 293:1513-5
7. Collins GB, McAllister MS, Jensen M, Gooden TA: Chemical dependency treatment outcomes of residents in anesthesiology: Results of a survey. *Anesth Analg* 2005; 101:1457-62
8. Fry RA: Chemical dependency treatment outcomes of residents. *Anesth Analg* 2006; 103:1588
9. Smith GC, Pell JP: Parachute use to prevent death and major trauma related to gravitational challenge: Systematic review of randomised controlled trials. *BMJ* 2003; 327:1459-61