

Drug Diversion in the Anesthesia Profession: How Can Anesthesia Patient Safety Foundation Help Everyone Be Safe? Report of a Meeting Sponsored by the Anesthesia Patient Safety Foundation

Maria Van Pelt, PhD, CRNA

Tricia Meyer, MS, PharmD

Rigo Garcia, MSN, MBA, CRNA

Brian J. Thomas, JD

Ronald S. Litman, DO, ML

Diversion in the workplace can adversely impact the safety of healthcare professionals and patients. The Anesthesia Patient Safety Foundation (APSF) believes that substance use disorder, diversion in the workplace, and their potential adverse effects on patient safety need to be addressed through open discussion, education, research, policy, and possible other interventions. To make progress in this area, the APSF

convened a conference entitled “Drug Diversion in the Anesthesia Profession: How Can APSF Help Everyone Be Safe?” in Phoenix, Arizona, on September 7, 2017 (Supplemental Digital Content, Document, <http://links.lww.com/AA/C616>). It was comoderated by the authors.

Keywords: Diversion, drug diversion, drug testing policy, interventions, substance use disorder.

Anesthesia Patient Safety Foundation (APSF) President Mark A. Warner, MD, welcomed >50 participants who represented large anesthesia group practices and practice management companies. The attendees participated in a half-day conference to discuss relevant anesthesia patient safety issues related to the opioid epidemic and, specifically, drug diversion in the healthcare workplace. The workshop was introduced by a multidisciplinary panel of experts who provided information on patient and healthcare worker (HCW) safety implications associated with drug diversion. The goal of the workshop was to develop (broad) recommendations to reduce the associated risks to providers and patients from drug diversion. The conference started with a series of informational presentations by diverse stakeholders with associated audience response polls followed by panel discussions and small group breakout sessions.

Discussion

Despite an extensive awareness of the prevalence of substance use disorder in healthcare professionals and data demonstrating that substance misuse is an occupational hazard for HCWs and those in training, little progress has been made improving the prevalence, education, and

outcomes. Substance use disorder is a problem that continues to impact society. It is estimated that 10%–15% of HCWs, including anesthesia professionals, will misuse drugs or alcohol at some time during their career.¹ It has been suggested that substance use disorder is the most frequent disabling illness in HCWs. There clearly is a need for multidisciplinary coordination of efforts to reduce drug diversion within the healthcare workplace as highlighted in the presentations at the workshop.

• **Drug Diversion.** “Drug Diversion from the Health Care Workplace: A Multi-Victim Crime,” Keith H. Berge, MD (Mayo Clinic, Rochester, MN), noted that not only do addicted HCWs divert drugs from their employers to support their addiction but they also divert drugs from their patients. This poses a major patient-safety risk and exposes patients to blood-borne pathogens as evidenced by the outbreaks of infection associated with diversion.² Dr Berge supported the notion that it is a multivictim crime that places patients, addicted HCWs, their coworkers, their employers, and society at risk and emphasized that vigilance is mandatory. Moreover, he advocated for policies and procedures within healthcare institutions for dealing with investigations and managing possible outcomes of confirmed diversions.³

Reprinted with permission from *Anesthesia & Analgesia*: October 30, 2018 - Volume Publish Ahead of Print DOI: 10.1213/ANE.0000000000003878. Copyright ©2018 International Anesthesia Research Society. All rights reserved.

• **Securing Narcotics.** “Securing Narcotics: Standard of Care Evolves in Wake of Hepatitis C Outbreaks,” Brian Thomas, JD (Preferred Physicians Medical, Overland Park, KS), provided a medicolegal perspective on drug diversion and tampering by highlighting 3 high-profile cases in which hospital employees infected patients with blood-borne pathogens. The hospital employees stole the anesthesia providers’ narcotics that were left unsecured, injected themselves, refilled the syringes with saline, and returned them to be administered to patients. These incidents resulted in dozens of patients being infected with life-threatening Hepatitis C, multiple lawsuits, medical and nursing board investigations, and widespread negative publicity for the involved healthcare providers and facilities.⁴ He discussed that in medical negligence litigation, the standard of care is defined by expert opinion and testimony. In light of recent highly publicized cases, the consensus among anesthesiology experts is all schedule 3 and 4 narcotic medications should be kept in locked enclosed areas when not under the direct control of anesthesia professionals. He also offered risk-management strategies that included: carefully reviewing and adhering to all hospital/facility drug storage and security policies, never leaving controlled substances or medications likely to be diverted unsecured and unsupervised, carefully considering whether to keep controlled substances or medications likely to be diverted on your person once dispensed, reporting any suspicious behavior or activity if you suspect drug diversion, and implementing workplace drug testing policies.

• **Why and How Drug Diversion Occurs.** “The Silent Epidemic Drug Diversion in the Health Care Setting,” Tricia Meyer, PharmD (Scott & White Temple Medical Center, Temple, TX), pointed out how common theft/diversion of controlled substances is in the healthcare workplace and that it may be attributed to the high-risk settings and easy access to drugs in these areas.^{1,5} There are several other potential reasons, including self-medicating for personal health problems, cultural acceptance of pharmacological agents to cure ills, decrease pain, overwork, sleep deprivation, availability and access, advanced parenteral administration skills, believe immunity to drug abuse, and exposure to death and dying.^{6,7} The Joint Commission sets expectations of medication security in their Medication Management Standards to ensure that hospitals secure medications in protected areas and locked when necessary, in accordance with law and regulation, to prevent diversion.⁸ Each organization is then responsible for developing a controlled substance diversion prevention program that complies with federal and state laws and regulations. In addition, a hospital should use technology and ongoing surveillance to consistently review procedure compliance and effectiveness, strengthen controls, and seek to proactively stop diversion.⁷ However, many healthcare systems have inconsis-

Statement to Which Audience Members Responded ^a	Agreement (n = 51), %
Addiction is a choice and not so much an actual disease.	7
Drug diverters display patterns and behaviors that make them relatively easy to identify.	6
Drug diversion from the healthcare workplace is a rare event.	18
The impaired anesthesia professional who is found to be diverting medication should be confronted by human resources, facility security, and their direct supervisor. They should be escorted to their locker to clean it out immediately and immediately sent home pending further investigation.	37
Operating rooms are “secure areas.”	9
Anesthesia professionals should keep prepared syringes on their person.	50
The theft of 1 oxycodone is a crime that MUST be reported to the Drug Enforcement Agency (United States) within the business day.	84
Anesthesia practice groups should develop and implement drug testing policies.	92
Most healthcare workers who divert drugs are caught by self-reporting.	0
Surgical procedures can be done without opioids.	77

Table 1. Attitudes About Substance Use Disorder and Drug Diversion

Note: The attendees represented clinical operations of healthcare facility, administrative operations of healthcare facility, and research operations of healthcare facility, corporate, or other business environment. More detailed demographics of the participants were not available.

^aThe 51 attendees consisted of 66% anesthesiologists, 15% nurse anesthetists, 4% nurses, 4% nonclinical healthcare professionals, and 11% corporate/industry professionals.

tencies in their oversight of controlled substances, poor accountability, inconsistent compliance with regulatory requirements, processes favoring convenience over control, inconsistent and delayed consequences, lax processes, and a culture of reluctance to speak up that can enable diversion. In her presentation, Dr Meyer noted that the goal is to reduce the number of employee diversions, the lag time between employees beginning diversion and discovery, and reduction of the number of vials/tablets/syringes diverted by addicted employees. There are opportunities for diversion at almost every step of any medication use process. Diversion can occur at procurement, preparation/dispensing, prescribing, administration, and waste/removal of controlled substances. Each of these represents a theft risk point, and safe guards must be in place at each step. “The Impaired Provider “Catch Me, (If You Can),” Rigo Garcia, CRNA (Parkdale Center for Professionals, Chesterton, IN), shared his personal journey with substance use disorder and experience as the co-founder and executive program director of a

Recommendations	Potential interventions
Develop a prevention focus related to substance use disorder and diversion within healthcare organizations.	Develop a Clinician Wellness Committee within the procedural practice.
Provide a comprehensive educational program related to substance use disorder to reduce the stigma associated with it and to promote a culture of safety.	Develop educational modules and build a culture of safety that addresses the factors that increase the risk for substance use disorder.
Develop clear policies related to drug diversion and substance misuse.	Convene a multidisciplinary group to review best practices and develop policies for the prevention and detection of drug diversion and substance misuse in procedural practices; this should include a drug diversion team that investigates missing drug events.
Healthcare organizations should identify and provide appropriate recommendations related to “process of reporting” and treatment options for all anesthesia professionals.	Develop an information tool kit and designate a resource person within each anesthesia group and healthcare organization.
Develop a comprehensive approach to managing the key areas of focus related to substance use disorder.	Annual competencies modules related to wellness, substance use disorder, diversion, and treatment options should be available and widely communicated within healthcare organizations.
Develop a comprehensive requirement for new employee reference checks (including clarity on any gaps in employment).	Standardize a comprehensive reference checking process.
Develop consistency across all healthcare institutions as it relates to oversight of controlled substances.	Create and uphold a well-defined policy for institutional oversight of controlled substances.
Prioritize compliance and accountability.	Standardize drug testing policies.
Intensify research and learn from all healthcare disciplines.	Use multidisciplinary collaborations to facilitate research, education, and policy development.

Table 2. Recommendations and Associated Potential Interventions for Healthcare Facilities or Health Systems

center that specializes in diagnosis, treatment, monitoring, and advocating for the addicted professional and their families. In his presentation, Mr Garcia described the inconsistencies and noncompliance in organizational regulatory requirements that enable addicted HCWs access to misuse controlled substances. He advocated that because HCWs remain at higher risk of substance use disorder due to easy access to medications, expert knowledge in how to use them, and increasingly stressful jobs, proper treatment followed by an accountability monitoring program are essential for sustained sobriety. Mr Garcia stressed that a punitive-only approach to managing the impaired provider has been proven to be ineffective over the past 50 years and is detrimental to those who desire to seek help voluntarily.

• **The Opioid Sommelier.** “Are Opioids Necessary for Surgical Patients?” Ronald S. Litman, DO, ML (The Children’s Hospital of Philadelphia, Philadelphia, PA, and the Institute for Safe Medication Practices, Horsham, PA), shared his perspective that any attempt to prevent diversion of opioids in the perioperative environment may ultimately be unsuccessful if it relies on education, surveillance, or vigilance because these all are historically unreliable in producing changes in behavior. Dr Litman made the provocative recommendation that the only reliable way to prevent diversion by anesthesia professionals is to remove their ability to access and administer opioids. Although opioids are traditionally used as part of a balanced anesthetic technique, their intraoperative use has

not been definitively associated with improved outcomes. In fact, the blinded substitution of β -blockers for opioids has resulted in less postoperative opioid use^{9,10} Therefore, Dr Litman introduced the concept of the “opioid sommelier,” a healthcare professional who is designated to administer opioids in the perioperative environment. This method would be designed to eliminate opioid diversion by anesthesia and other operating room personnel. It would potentially decrease first-time opioid use by HCWs if the drugs are not available to individual personnel.

Several obstacles would need to be overcome due to the current standard of care that requires each anesthesia professional to administer their own opioids. These include identifying specific opioid sommeliers, defining their credentials and responsibilities, determining how these people would prioritize opioid administration, and attaining buy-in from all perioperative personnel.

Recommendations

Audience polling throughout the meeting revealed attitudes and priorities about substance use disorder in anesthesia providers and drug diversion in the perioperative environment (Table 1). The most agreed upon action item (92% agreement) was for anesthesia practice groups to develop and implement drug testing policies. However, as previously discussed in this Journal, the practicalities of implementing such a system are not always straightforward.^{11,12} As a result of the presentations, and further discussions during small breakout sessions, our diverse

group of stakeholders put forward a broad portfolio of recommendations (Table 2). In summary, substance use disorder is an addiction and, as with any addiction, it is a disease. Its diagnosis, management, and treatment will vary depending on the severity of the disease. Effective means of treatment must focus on recognition that substance use disorder is not curable and requires lifelong surveillance. Equal emphasis must be placed on prevention. Substance use disorder and diversion of medications in the workplace can adversely impact the safety of healthcare professionals and patients. Healthcare organizations have an opportunity to implement positive change by implementing a culture of safety and accountability.

REFERENCES

1. Wright EL, McGuinness T, Moneyham LD, Schumacher JE, Zwerling A, Stullenbarger NE. Opioid abuse among nurse anesthetists and anesthesiologists. *AANA J*. 2012;80: 120–128.
2. Schaefer MK, Perez JF. Outbreaks of infections associated with drug diversion by US health care personnel. *Mayo Clin Proc*. 2014;89:878–887.
3. Berge KH, Dillon KR, Sikkink KM, Taylor TK, Lanier WL. Diversion of drugs within health care facilities, a multiplevictim crime: patterns of diversion, scope, consequences, detection, and prevention. *Mayo Clin Proc*. 2012;87:674–682.
4. Thomas BJ. Securing narcotics: standard of care evolves in wake of hepatitis C outbreaks. *Anesth Law*. 2013:1–5.
5. Baldisserrri MR. Impaired healthcare professional. *Crit Care Med*. 2007; 35(suppl):S106–S116.
6. Desmond J. University of Michigan Injury Center-Opioid Overdose Summit. December 8, 2015. Available at: <https://www.slideshare.net/UMInjuryCenter/health-system-responseto-opioid-overdose-diversion-by-jeffrey-s-desmond-md>. Accessed August 30, 2017.
7. Brummond PW, Chen DF, Churchill WW, et al. AHSP guidelines on preventing diversion of controlled substances. *Am J Health Syst Pharm*. 2017;74:325–348.
8. Joint Commission. *Medication Management Standard MM-1. Comprehensive Accreditation Manual for Hospitals*. Oakbrook Terrace, IL: Joint Commission Resources; 2016.
9. Chia YY, Chan MH, Ko NH, Liu K. Role of beta-blockade in anaesthesia and postoperative pain management after hysterectomy. *Br J Anaesth*. 2004;93:799–805.
10. Collard V, Mistralletti G, Taqi A, et al. Intraoperative esmolol infusion in the absence of opioids spares postoperative fentanyl in patients undergoing ambulatory laparoscopic cholecystectomy. *Anesth Analg*. 2007;105:1255–1262.
11. Rice MJ, Grek SB, Swift MD, Nance JJ, Shaw AD. The need for mandatory random drug testing in anesthesia providers. *Anesth Analg*. 2017;124:1712–1716.
12. Berge KH, McGlinch BP. The law of unintended consequences can never be repealed: the hazards of random urine drug screening of anesthesia providers. *Anesth Analg*. 2017;124:1397–1399.

AUTHORS

Maria Van Pelt, PhD, CRNA, is employed by Northeastern University in Boston, Massachusetts. Email: m.vanpelt@northeastern.edu.

Tricia Meyer, MS, PharmD, is employed by Scott & White Temple Medical Center in Temple, Texas.

Rigo Garcia, MSN, MBA, CRNA, is employed by Parkdale Center for Professionals in Chesterton, Indiana.

Brian J. Thomas, JD, is employed by Preferred Physicians Medical in Overland Park, Kansas.

Ronald S. Litman, DO, ML, is employed by The Children's Hospital of Philadelphia in Philadelphia, Pennsylvania and the Institute for Safe Medication Practices in Horsham, Pennsylvania.

DISCLOSURES

The authors have declared no financial relationships with any commercial entity related to the content of this article. The authors did discuss off-label use within the article.

ADDENDUM

The AANA's Position Statement and Policy Considerations, titled [Addressing Substance Use Disorder for Anesthesia Professionals](#), is a comprehensive resource for drug diversion prevention that offers guidance on policy development to address a situation where suspicion or proof of impairment and/or drug diversion occurs. Having a policy in place for fair handling, along with education to identify at risk individuals, can help create a workplace culture supporting prompt reporting and appropriate follow-up. The AANA advocates for a safe transition to evaluation at an addiction treatment program with experience treating healthcare professionals. These resources offer an alternative to sending the individual home alone, which can often lead the individual to suicidal ideation following belief that their career and life is over. The AANA Peer Assistance Helpline (800-654-5167) responds to nurse anesthetists and students seeking help for substance use disorder, as well as a supervisor, colleague, or family member with concerns, by offering resources and support to help individuals be evaluated for appropriate, life-saving treatment.

SUGGESTED RESOURCES:

AANA Peer Assistance Helpline 800-654-5167 for 24/7 confidential live support and resources

www.AANA.com/SUDWorkplaceResources (includes the Addressing Substance Use Disorder for Anesthesia Professionals document)

www.AANA.com/gettinghelp

www.AANA.com/SignsandBehaviors

www.AANA.com/Intervention

www.AANA.com/Treatment