

Substance Abuse and Anesthesia: Why It Is Your Problem and What Student Nurse Anesthetists Are Doing About It

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With this issue, the AANA NewsBulletin is proud to introduce Peer Assistance News, a new column that will appear four times per year. Written under the auspices of the AANA Peer Assistance Advisors Committee, this new column will be dedicated to informing members about substance abuse prevention and treatment, and the efforts underway to address the occupational risk of chemical dependency that is so important to anesthesia professionals, their families, and the patients in their care.

Substance abuse among anesthesia providers is considered by many to be the most serious occupational risk for the anesthesia community. Although estimates of the prevalence of addiction among healthcare providers vary by specialty and data source, it is suggested that 10-15 percent of all clinicians will misuse drugs or alcohol at some time during their career.¹⁻²

The hypothesized causative factors that place anesthesia professionals at an increased risk for substance abuse are occupational stress, occupational exposure, accessibility to controlled substances, liability issues, burnout, irregular work hours, and sleep deprivation.³⁻⁶

The AANA has had a very actively supported Peer Assistance Advisors Committee for the past 27 years. The wellness area of the AANA website (<http://www.AANAWellness.com>) states that “The AANA recognizes that anesthesia providers, because of their exposure and the nature of their work, may be at high risk for substance misuse.” This position clearly supports the principle that “Education is mandatory if lives are to be saved.”²

If, indeed, education saves lives, then a thorough understanding of the mechanisms of dependence and addiction, of wellness and prevention, of the trajectory of the disease when prevention fails, and of appropriate intervention, treatment, and recovery, is incumbent upon all anesthesia professionals in order to keep themselves, their colleagues, and their patients free of harm. To this end, student nurse anesthetists in Pennsylvania have spearheaded a fast-growing initiative adopted to combat this deadly threat.

The RISK Project

The RISK Project is an intercollegiate presentation conceived by Michael Lord, RN, BSN, the 2009-10 Pennsylvania Association of Nurse Anesthetists (PANA) state student representative and currently a second-year student at the University of Pennsylvania. With the continued support of Maria Magro, CRNA, MS, MSN, program director of the Nurse Anesthesia Program at the University of

Pennsylvania, 2010 member of the AANA Wellness Committee, and consultant to the Executive Committee of the Anesthesia Patient Safety Foundation, Lord rallied 21 students representing 12 of Pennsylvania’s 13 nurse anesthesia programs to participate in an intercollegiate project entitled “RISK: Substance Abuse & Anesthesia.” This initiative, now known as The RISK Project, set out to raise awareness of substance abuse in the anesthesia community and to offer a hand in the prevention, identification, and management of this serious occupational hazard.

The RISK Project is a 90-minute presentation initially coauthored by students for students with the intention of being delivered by students to students. Arthur Zwerling, CRNA, DNP, MSN, DAAPM, chair of the AANA Peer Assistance Advisors Committee, a leader in the field of addiction, and the current Pennsylvania State Peer Advisor (SPA), was recruited as the project’s faculty mentor and has been a driving force behind this project’s increasing reach. The coauthors of the program strongly believe that a horizontal approach—student nurse anesthetist authorship and delivery—is important to bring the curriculum to a student level. In nurse anesthesia programs that adopt this adjunct curriculum, incoming students attend the presentation their first year and later deliver the presentation to underclassmen before graduation. This model reinforces the material through a double exposure process.

The RISK curriculum content includes the following sections: (1) an introduction addressing the history and scope of substance abuse among anesthesia providers, (2) provider statistics and coverage of the incidence of both dependence and addiction, (3) addiction as disease: organicity vs. stigma, (4) risk and stressors, (4) stress modification: wellness and prevention, (5) signs and symptoms: presentation, intervention and obligatory reporting, (6) recovery: where to turn and what to do, (7) effectiveness of treatment and recidivism, (8) successful professional re-entry, (9) a conclusion, and (10) a question-and-answer session. At the end of the presentation wallet cards with emergency peer assistance hotline numbers are distributed.

The RISK Project reports extensively on neurophysiology and the pathogenesis of addiction—not to make addictionologists out of audience members but to substantiate the organicity of addiction and to help eliminate clinical bias by reducing stigma. This lingering stigma of substance abuse and its resulting clinical bias have been identified as significant impediments to effective intervention, treatment, and recovery. This stigma also perpetuates common myths such as the belief that “It won’t happen to me.”

RISK was first presented at the PANA Spring Symposium in April, 2010. Multiple coauthors, all dressed in uniform red scrubs embroidered with RISK above the breast pocket, delivered the curriculum,

each presenting a particular section of the PowerPoint. Fiscal Year 2010 AANA President James Walker, CRNA, DNP, was in attendance and immediately recognized the efforts of these outstanding students. RISK received a standing ovation. To highlight the importance and quality of the RISK Project and to underscore the importance of wellness in our community, President Walker chose Michael Lord (representing the RISK team) as the candle lighter for the moment of silence during the Business Meeting at the Seattle Annual Meeting, memorializing CRNAs who have died during the past year.

One exceptional feature of this group effort is that the presentation was developed through use of an inexpensive online workgroup platform augmented by conference call technology courtesy of PANA. Most of the coauthors never met in person until the night before the program's debut, when they convened and rehearsed in person at the Hotel Hershey.

Since then, RISK was selected for presentation at the national iNet Conference (Innovative Nursing Education Technologies) sponsored by Duke University. iNet received a \$1.9 million Health Resources Services Administration grant award while working in partnership with Western Carolina University and the University of North Carolina-Charlotte in an initiative aimed at educating faculty on strategies for using and integrating innovative educational technologies into nursing programs (<http://inet-nurse.org/>). The RISK team participated in this event by broadcasting their poster presentation via animated avatar in a virtual environment from a hotel room during the Annual Meeting in Seattle.

As this curriculum is being adopted by nurse anesthesia programs across Pennsylvania and the nation, the impact and success of RISK has generated a wave of interest among hospitals as an inservice program for CRNAs, with several healthcare facilities requesting a shorter version of the material. The RISK team has now developed 60-minute and 30-minute versions of the original curriculum for this purpose. The project has already been presented as an anesthesia department inservice and will continue to raise awareness in this capacity in the future.

The statistics of substance abuse in our community are staggering. Dramatically reinforcing these statistics, the RISK team interspersed obituaries between pivotal sections of the lecture, punctuated by a gunshot sound effect. Each shot represented a life lost to substance abuse in the United States in real time during the presentation.

Another goal of the RISK project is to foster intercollegiate discourse and establish a platform for student nurse anesthetist coauthorship. PANA has embraced this model, and from now on there will be a place reserved at PANA's Spring Symposium for the Annual Intercollegiate Student Registered Nurse Anesthetist Presentation. Each year the incoming state student representative will identify a new topic and recruit students from the Pennsylvania nurse anesthesia programs to participate. Student coauthors will benefit from the experience of researching and coauthoring a high-quality presentation for a professional audience, while also gaining valuable public speaking experience at an annual event.

In Conclusion

Addiction has plagued humankind throughout history. Despite centuries of steadily increasing awareness of the prevalence of addiction among healthcare professionals and decades of data suggesting that addiction is a true occupational hazard for anesthesia providers and those in training, little progress has been made in improving education, minimizing prevalence, and improving outcomes. Now it is up to us to stay abreast of the scope, the continual threat, and the grave impact of addiction. Substance abuse among anesthesia providers is a matter of life and death, for us and for the patients for whom we provide care. We need to stay abreast of the current literature on this topic, follow provider statistics and trends, and reinforce this material on a regular basis. Awareness and knowledge are our best prevention. As President Walker so eloquently stated, "As we collectively educate ourselves, the 'pink elephant' of our profession will hopefully be illuminated, acknowledged, and finally receive the proper attention. Perhaps this willingness to effectively address substance abuse will save lives: our patients', our colleagues', or our own."^{2(p.2)}

Be well and be safe anesthesia providers, keep your guard up and most importantly, know your risk...because tomorrow matters!■

AANA Peer Assistance Contact Information

The AANA peer assistance homepage can be found at <http://www.AANAPeerAssistance.com>. The AANA Peer Assistance Hotline number is (800) 644-5167. The Anesthetists In Recovery (AIR) homepage can be found at <http://www.aana.com/Resources.aspx?id=1224>. AIR can be reached at (215) 635-0183 or at a.to.z@comcast.net.

References

1. Baldisseri MR. Impaired healthcare professional. *Crit Care Med*. 2007; Feb;35(2 Suppl):S106-16.
2. Higgins Roche BT. *Substance Abuse Policies for Anesthesia*. Winston-Salem, NC: *All Anesthesia*. 2007
3. Alexander B, Checkoway H, Nagahama SI, Domino KB. Cause-specific mortality risks of anesthesiologists. *Anesthesiology*. 2000; 93:922-930.
4. Luck S, Hedrick J. The alarming trend of substance abuse in anesthesia providers. *J Perianesth Nurs*. 2004;19:308-311.
5. Alves SL A study of occupational stress, scope of practice, and collaboration in nurse anesthetists practicing in anesthesia care team settings. *AANA J*. 2005;73:443-452.
6. Bryson EO, Silverstein JH. Addiction and substance abuse in anesthesiology. *Anesthesiology*. 2008;109:905-917.