Reentry using naltrexone: One anesthesia department's experience

The responsibilities of administrative managers may include dealing with the practitioner who is seeking to reenter the workplace while recovering from drug or alcohol addiction. The following article offers assistance when considering the development of a policy for reintroducing and monitoring these individuals in an anesthesia department. In this instance, naltrexone was found useful in facilitating reentry into anesthesia practice after inpatient treatment and while following a comprehensive aftercare program. The AANA Peer Assistance Advisors have compiled a model policy and reentry contract. For copies of policies, video resources, or other additional information, contact AANA staff member Susan Burger at (847) 692-7050, extension 3011.

Key words: Chemical dependency, naltrexone, recovery, reentry.

When faced with a crisis of chemical dependency in an anesthesia practitioner and having an awareness of the relatively high incidence of relapse, as well as its devastating professional consequences, the anesthesia department devised a recovery program that involves a relatively rapid return to work. Reentry after the traditionally recommended 1-year sabbatical is often difficult, if possible at all. In addition, in this situation, the board of nursing backlog of cases prohibited its advising or offering recommendations to this anesthesia department until the suspect CRNA's case was called before a caseworker, many months after the addictive occurrence.

I was approached as coordinator of the Kentucky Peer Assistance Program for Nurses (KPAPN), and as state peer assistance advisor, to facilitate resources in the development of a "return-to-work process" following an individual's recovery program. As a result of investigating existing resources, it appeared that prudence and safety, crucial to patient care and job security, have been implemented in this comprehensive return to work agenda.

The American Association of Nurse Anesthetists recognizes addiction as a disease characterized by a chronic, progressive process that may destroy the professional, the family, and the community. According to the American Society of Anesthesiologists, "chemical dependency is a medical disease." That belief is fundamental in the return to work process, as the following statement contends, "If one does not accept this premise, summary dismissal for chemical dependence can be supported." However, as Catanzarite argues, chemical dependency meets all the criteria for a disease, not a condition or a disorder. It has predictable symp-
Symptoms, is progressive, is primary (not secondary to any other disease), is chronic and permanent, and can be fatal if left untreated. Such a belief would preclude moral judgments, often subtle and yet pervasive in each of us.

**An outstanding anesthetist**

The involved CRNA was thought to be an outstanding anesthetist, admired and appreciated by all, within and without the anesthesia department. The “most requested” CRNA by the operating room staff for a variety of surgical procedures, this individual was held in the highest esteem by the employers. Therefore, most of the staff had been shocked and disappointed to learn of the clever and yet ultimately sloppy diversion of sufentanil.

Subsequently, the coworkers and employers gathered the appropriate history and documentation. The most incriminating accounts were of the CRNA’s abnormal behavior as witnessed by the employers and colleagues. Of value were the syringe and tourniquet found in the restroom on the morning in question, concerns that sufentanil was not an appropriate choice for a 30-minute excision of a Morton’s neuroma, and the blood that was found on the CRNA’s chair at the end of the case in question. Several witnessed and recalled incidents involved such things as frequent requests for restroom breaks, falling asleep during conversations, and in one such instance actually drooling. The customary search for errors in the narcotic audit was fruitless. The CRNA had meticulously charted every narcotic taken as being given to patients. In addition, the CRNA always arrived at work early and left late, characteristics previously valued by the corporation but subsequently found to be a component of the addictive course.

Realizing that interventions are emotionally exhausting endeavors and that an addict’s life often depends on the appropriate conduct of such an encounter, the anesthesia department chairman consulted specialists in intervention. Upon the interventionist’s advice, the necessary procedure and recourse for intervention was established, the frightened and caring coworkers were assembled, and an effective yet compassionate intervention was conducted.

**Treatment facility**

Immediately thereafter, an anesthesiologist and a nurse anesthetist accompanied the CRNA to a treatment facility that had been selected prior to the intervention. (The addict should never be left unattended after an intervention, since suicide is a possibility, and driving a vehicle while impaired is a danger to the individual as well as others.) In accordance with state law, the CRNA’s apparent addiction and the diversion of controlled substances were reported to the board of nursing.

Immediate preparations in the aftermath of shock, included a departmental seminar on “Chemical Dependency in the Anesthesia Caregiver,” presented by the chairman of the state’s Impaired Physicians Program (IPP). The program included the powerful film, “Wearing Masks,” which deals with the tragic death of an outstanding anesthesia resident due to sufentanil abuse.

The chairman of the IPP was also helpful in recommending that the CRNA be sent to an extended inpatient treatment facility that specializes in the problems specific to healthcare practitioners with addiction. While it is widely accepted that effective early treatment is essential, the need for treatment designed specifically for medical practitioners is arguable. Few could, however, deny that physicians and nurses differ from the general public in their tendency, of necessity, to become pharmacologic specialists, and that the tendency to “self-medicate” is a common thread among traditionally self-sufficient practitioners. As Jaffe states, “…whether drugs are used for producing pleasure or for the avoidance or relief of distress, it is the self-administration of drugs and the self-induced changes in mood that are the critical factors in the development of compulsive abuse.”

In addition, Ross was able to demonstrate in her study of student nurse anesthetists who abused fentanyl, that all of the students who entered inpatient treatment were able to graduate and pursue anesthesia careers. Conversely, all the participants who entered outpatient rehabilitation programs were not successful and did not graduate.

Unfortunately, due to the current financial climate and insurance reimbursement issues, mental health specialists and their patients must often opt for the less expensive outpatient rehabilitation. Additionally, although it is customary for physicians to recommend inpatient treatment for their patients after relapse, patients often prefer the less lifestyle-disturbing outpatient rehabilitation. Fortunately for the impaired individual this anesthesia department strongly felt that every precaution should be taken initially since relapse might be the end of this CRNA’s career. More importantly, because relapse related to sufentanil abuse is often fatal, there was concern for the nurse anesthetist’s safety.

**Returning to work**

While the individual recovered in an out-of-state treatment facility, the department chairman began the tedious work of preparing for the
CRNA's return to work. A reentry contract, as well as a monitoring system and recovery program that would satisfy even the most skeptical, was devised. As in many states, Kentucky law does not protect the addict from legal actions relating to diversion of controlled substances. However, the board of nursing attempted to strike a "balance between the board's enforcement responsibilities to the public and the rehabilitation objectives of a treatment program." Therefore, the department policy also needed to consider the board's anticipated sanctions, which could have included a revocation or suspension of the nursing license, restrictions on narcotic use for 1 year or more, and certainly a probationary period with defined criteria for workplace activities.

The treatment facility's psychiatrist and the department chairman determined the timing of the CRNA's return to work. In this instance, it was agreed that return after 2 months was acceptable, if the nurse anesthetist was followed in the KPAPN. In addition, a meeting of all involved parties immediately prior to the individual's return to work was held. Attendees included the department chairman, a physician liaison selected by the recovering CRNA, the state's peer assistance program coordinator, a staff CRNA/anesthesiologist liaison, the chairman of the IPE, and me as the state peer assistance advisor. All aspects of the aftercare program were discussed, and questions were answered.

Naltrexone

The primary source of monitoring the individual for abstinence was to be the administration of naltrexone, a narcotic antagonist.

The AANA Peer Assistance Advisors first became familiar with the potential uses of naltrexone in an article by Carlos "Rusty" Ratliff, CRNA, coordinator of Anesthetists in Recovery (AIR). The American Society of Anesthesiologists also states that naltrexone "should probably be mandatory in a specialty where fentanyl and other opioids are the major drugs of abuse."

The use of a narcotic antagonist is, however, not without its own problems:

1. Naltrexone is rapidly absorbed after oral administration, making it easy to take immediately prior to a screening level.
2. Many laboratories do not provide naltrexone screens, and, although such a screen could be done on urine, a more exact method, albeit more invasive, would be to obtain a serum level.
3. Crushing the pill and dissolving it in juice alleviates some of the concern that it might be hidden in the buccal mucosa instead of being swallowed.
4. Cost might seem another prohibitive factor, since a naltrexone screen costs at least $200, and each pill costs $4. This department felt that cost was insignificant when compared to the consequence of a relapse and the potential for a lost life.

A further logistical problem surrounded the actual administration of the drug to the nurse anesthetist. The employer provided anesthesia services for two busy hospitals and staff rotated on a daily basis. It was decided to enlist the services of the hospital's employee health nurse to administer the drug daily, initial it on a calendar, and send the report to KPAPN on a monthly basis. The responsibility for dosing was therefore more consistent, and the process was removed from the anesthesia department.

Close supervision

To further facilitate continuity, it was decided that the nurse anesthetist would remain stationary, providing anesthesia service at one hospital. The CRNA was assigned no major cases until after the board of nursing hearing and was virtually settled into the cataract suite for at least the first year of recovery. This also satisfied the KPAPN's requirements to (1) not "float" the recovering individual in order to enable supervision, and (2) not ask the recovering individual to work more than 44 hours per week, since exhaustion is recognized as a trigger of relapse.

While many interpreted this assignment as an insult to one so accustomed to the "glory and thrill" of the more complex vascular and thoracic cases, this CRNA viewed it as an opportunity to save a career.

Aftercare recovery program

The rigorous aftercare recovery program designed by KPAPN, is intended to cover all areas of chemical dependency issues. This individual's program included three Alcoholics Anonymous/Narcotics Anonymous meetings a week; a weekly nurses therapy group, provided for nurses and physicians by a local addiction treatment facility; and weekly attendance at a nurses support group, known as Nurses Assisting Nurses. In addition, weekly witnessed random urine drug screens were performed. These toxicology screens included fentanyl and its metabolites.

In many states, peer assistance programs insist on a more extensive recovery schedule than boards of nursing may be authorized by law to implement. Some states have passed legislation dealing with diversion issues, allowing the CRNA to opt to accept legal sanction and comply with the easier board-approved aftercare agenda, for example, two
Alcoholics Anonymous/Narcotics Anonymous meetings a week, random urine drug screens, and monthly caseworker follow-up. The use of naltrexone is more traditionally a component of a peer assistance program strategy and not utilized by a board of nursing.

**Chemical dependency education**

Subsequently, in preparation for the CRNA's return to work, chemical dependency education was provided for the staff of the operating room, postanesthesia care unit, endoscopy, and lithotripsy units. The major aspects of the presentation by a KPAPN coordinator included incidence, etiology, symptoms, treatment, and relapse. A questionnaire on enabling attitudes and behaviors was provided in order for staff members to assess their level of involvement in the CRNA's problem. Examples of enabling from Catanzarite include not taking action in the hope that things will get better, failing to report suspicious incidents for fear the person will lose his or her license, and believing that an individual's alcohol or drug use is his or her personal business and of no concern to others. Catanzarite reminds us that addicts do not get sick alone.

**Board of nursing hearing**

The board of nursing hearing was finally scheduled. Not only did the CRNA's attorney attend the hearing, the chief of the anesthesia department, the chosen anesthesiologist liaison, a CRNA coworker, and a coordinator of the KPAPN attended as well. Other coworkers submitted letters of recommendation. As a result, instead of suspending the license or invoking a narcotic restriction, a typical board restriction, the board issued a 4-year probation with the admonition that narcotic records was available. In addition to monitoring disposal, individual observation of each administered dose was one of concern for the board of nursing. Naltrexone was an invaluable adjunct to this aspect of the program. Another option is a more acceptable system in which narcotics are not wasted but returned in their respective syringes, appropriately labeled, and subject to random sampling for content at the pharmacist's discretion or a team member's request.

Naltrexone administration to the nurse anesthetist was continued for 2 years. The final decision to discontinue naltrexone was reached by the team of professionals designated for each aspect of the CRNA's recovery. That team included the addictionologist who was responsible for prescribing the naltrexone, the director of KPAPN, the anesthesiologist liaison, the chairman of the anesthesia department, and the chemical dependency therapist. Of consideration was Talbott, Richardson and Mashburn's study on relapse data done in conjunction with the Medical Association of Georgia's disabled doctors program. They found that "In the 2½ to 10 year follow-up of 61 anesthesiologists, 25% relapsed. Ninety percent of the relapses occurred in the first year and 98% within the first 2 years."

During the 2-year period, the nurse anesthetist began to conduct anesthesia practice in a regular manner. Originally, a 2-year contract had been signed with KPAPN. At the team's request and the CRNA's agreement, follow-up was extended for 6 months after discontinuation of naltrexone. (Many state peer assistance programs, such as those in Kentucky, Florida, and Tennessee, now require a 5-year contract with CRNAs.)

Although concerns occasionally resurfaced, both coworkers and employers acknowledged that the individual remaining on naltrexone during this period reduced anxiety related to possible relapse. The option of an onsite random urine drug screen should always be included in policies to allay these concerns when they occur.

**Conclusion**

This anesthesia department, in conjunction with the KPAPN, and available treatment facilities, has designed a program of recovery that is specific to the need of the CRNA's more rapid return to practice. The administration of naltrexone, while actively pursuing an extensive recovery program, worked well for this anesthesia department. Regardless of the length of abstinence, an individually tailored recovery program must remain a priority for the duration of the anesthesia career. The recovering CRNA should be supported for the pursuit of such a program rather than criticized for lack of a cure.

**REFERENCES**


As peer assistance advisor for the Kentucky Association of Nurse Anesthetists, Sandy Hudson, CRNA, BA, was instrumental in developing Kentucky's first state funded peer assistance program for nurses. Prior to state funding, she served for 2 years as one of three volunteer coordinators in charge of the pilot peer assistance program. Currently, she serves on the Board of Directors of the Kentucky Peer Assistance Program for Nurses, the AANA Peer Assistance Advisors, and is a peer assistance advisor for the Kentucky Association of Nurse Anesthetists. She has worked as a staff CRNA at Anesthesiologists Associates, in Louisville, Kentucky, for 16 years. On November 2, 1986, she began her personal recovery journey.
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Please consult the next page for Brief Summary of Prescribing Information.
**PRECAUTIONS:**

Ondansetron is not a drug that stimulates gastric or intestinal peristalsis. It should not be used instead of neostigmine suxamethonium. The use of ondansetron patients receiving abdominol surgery or in patients with chemotherapy-induced nausea and vomiting may mask a progressive ileus and/or gastric dilatation.

Drug Interactions: Ondansetron does not itself appear to induce or inhibit the cytochrome P-450 drug-metabolizing enzyme system of the liver. Because ondansetron is metabolized by hepatic cytochrome P-450 drug-metabolizing enzymes, inducers or inhibitors of these enzymes may change the clearance and, hence, half-life of ondansetron. The pharmacokinetic data, no dosage adjustment is recommended for patients on these drugs. Tumor response to chemotherapy in the Phase 168 mouse leukemia model is not affected by ondansetron in humans, carcinogenicity, teratogenicity, and cisplatin do not affect the pharmacokinetics of ondansetron.

**USE IN SURGICAL PATIENTS:** The coadministration of ondansetron had no effect on the pharmacokinetics and pharmacodynamics of temazepam.

*Carcinogenesis, Mutagenesis, Impairment of Fertility: Carcinogenic effects were not seen in 2-year studies in rats and mice with oral ondansetron doses up to 10 and 30 mg/kg per day, respectively. The ondansetron was administered in standard tests for mutagenicity. Oral administration of ondansetron up to 15 mg per day did not affect fertility or general reproductive performance of male and female rats.

**Pregnancy: Teratogenic Effects: Pregnancy Category B:** Reproduction studies have been performed in pregnant rats and rabbits at doses up to 4 mg/kg per day and at daily oral doses up to 15 and 30 mg/kg per day, respectively, and have revealed no evidence of impaired fertility or harm to the fetus due to ondansetron. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human responses, this drug should be used during pregnancy only if clearly needed.

**Nursing Mothers:** Ondansetron is excreted in the breast milk of rats; it is not known if ondansetron is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when ondansetron is administered to a nursing woman.

**Pediatric Use:** Ondansetron Injection: Little information is available about dosage in pediatric patients under 2 years of age (see DOSAGE AND ADMINISTRATION section for use in pediatric patients 4 to 16 years of age receiving cancer chemotherapy or for use in pediatric patients 2 to 12 years of age receiving cancer chemotherapy).

ZOFRAN Tablets: Little information is available about dosage in children 4 years and older (see CLINICAL PHARMACOLOGY and DOSAGE AND ADMINISTRATION sections of full prescribing information for use in children 4 years and older). The use of ondansetron in children younger than 18 years of age has not been studied.

**Use in Elderly Patients:** Dosage adjustment is not needed in patients over the age of 65 (see CLINICAL PHARMACOLOGY section of full prescribing information) Prevention of nausea and vomiting in elderly patients was no different than in younger age groups.

**ADVERSE REACTIONS:**

**ZOFRAN INJECTION:**

Chemotherapy-Induced Nausea and Vomiting: The following adverse events have been reported in individuals receiving ondansetron at doses of 0.5-15 mg/m² doses or as a single 32-mg dose in clinical trials. These patients were receiving concurrent chemotherapy primarily cisplatin and IV fluids. Most were receiving a dexamethasone.

<table>
<thead>
<tr>
<th>Event</th>
<th>Placebo</th>
<th>Placebo</th>
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<tbody>
<tr>
<td>Headache</td>
<td>52 (7%)</td>
<td>47 (6%)</td>
</tr>
<tr>
<td>Dizziness</td>
<td>49 (7%)</td>
<td>38 (6%)</td>
</tr>
<tr>
<td>Musculoskeletal pain</td>
<td>40 (6%)</td>
<td>32 (5%)</td>
</tr>
<tr>
<td>Nausea</td>
<td>33 (5%)</td>
<td>27 (4%)</td>
</tr>
<tr>
<td>Vomiting</td>
<td>30 (4%)</td>
<td>22 (3%)</td>
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**ZOFRAN TABLETS:**

Chemotherapy-Induced Nausea and Vomiting: The following adverse events have been reported in adults receiving either 8 mg of ZOFRAN Tablets two or three times a day for 3 days or placebo in four trials. These patients were receiving concurrent chemotherapy primarily cyclophosphamide-based regimens.

<table>
<thead>
<tr>
<th>Event</th>
<th>Placebo</th>
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<tbody>
<tr>
<td>Headache</td>
<td>58 (8%)</td>
<td>54 (8%)</td>
</tr>
<tr>
<td>Nausea</td>
<td>36 (5%)</td>
<td>31 (4%)</td>
</tr>
<tr>
<td>Vomiting</td>
<td>29 (4%)</td>
<td>21 (3%)</td>
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**Central Nervous System:** There have been rare reports consistent with, but not diagnostic of, extrapyramidal reactions in patients receiving ondansetron.

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<tbody>
<tr>
<td>Dizziness</td>
<td>69 (12%)</td>
<td>88 (16%)</td>
</tr>
<tr>
<td>Nausea</td>
<td>36 (7%)</td>
<td>34 (6%)</td>
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</table>

**Drug Abuse and Dependence:** Animal studies have shown that ondansetron is not discriminative as large as 252 mg/day have been inadvertently administered without significant adverse events. These doses are more than 10 times the recommended daily dose.

**OVERDOSAGE:** There is no specific antidote for ondansetron overdose. Patients should be managed with appropriate supportive therapy. Individual doses as large as 145 mg and total IV doses (IV fluids) as large as 252 mg have been inadvertently administered without significant adverse events. These doses are more than 10 times the recommended daily dose.

**Sudden blindness** (amaurosis) of 2 to 3 minutes' duration plus severe constipation occurred in one patient that was administered 72 mg of ondansetron intravenously as a single dose. Hypokalemia (and/or hypocalcemia) occurred in another patient that took 48 mg of ZOFRAN Tablets. Following ingestion of 32 mg as a single dose for 4 minutes, a vasovagal episode with transient second degree heart block was observed in all instances, the events resolved completely.

**Glossary**

Gastrintestinal Intestines.

**Flushing:**

**Central Nervous System:**

"Headache," "dizziness," "sedation," "nausea," "vomiting," "progressive ileus," "transient dilatation of intestinal lumen," and "nausea and vomiting" are terms that are subjective and may not be clearly defined.

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