

MAYO CLINIC
PROCEEDINGSA Need to Establish Programs to Detect
and Prevent Drug Diversion

Misuse of controlled substances is a problem of increasing frequency throughout the country. Access to controlled substances is obtained legally, through prescriptions, or illegally, through diversion. Concerns about both types of access are increasing. Recent articles in the *New York Times*^{1,2} describe increased requests for pain medication through emergency departments and the increased use of prescribed medications, resulting in loss of productivity as well as life. During the past 10 years, the prescription of opioids has increased 4-fold. Data from the Centers for Disease Control and Prevention indicate that almost 15,000 people died from overdose of prescription pain medications in 2008. Data such as these have led, in several states, to the establishment of laws created to reduce the prescription of opioids. Drug diversion provides the other means of accessing controlled substances. Although we know that it exists, the extent of the problem is not well documented. As noted in the article by Berge et al³ in this issue of *Mayo Clinic Proceedings*, diversion of controlled substances can occur from any site that contains these substances, including pharmacies and hospitals.

As described by Berge et al,³ drug diversion is not a "victimless crime." It poses risks to health care workers, their colleagues, and their patients. The nature of harm inflicted is variable. Berge et al³ report risks that range from inadequate analgesia and infection in patients to self-inflicted lacerations. Although scientific studies in the medical literature are lacking, reports in the lay press are not. One article described colon perforation by a surgeon working under the influence of drugs and a dermatologist unable to complete biopsies because of use of hydrocodone.⁴ Among anesthesiologists, lapses in the quality of clinical care provided may be the first sign indicating that a colleague is abusing controlled drugs. This indication may take the form of falling asleep during a preoperative evaluation or mishandling syringes in the operating room. Because of the obvious deviation from the standard of care, these behaviors are easily recognized. However, diversion of medications from patients and falsification of records of care likely

occur more frequently and can be more difficult to detect. Regardless of how it is accomplished, diversion of medications increases the risks for patients and undermines their trust in the ability of physicians to provide high-quality medical care.

Educated to use controlled substances to treat patients, physicians may believe that they can use the same substances to treat themselves, and, understanding the risks of using these medications, they may mistakenly believe that they will never allow themselves to become addicted. Despite an ethical obligation to do so, physicians do not always report colleagues who are impaired or incompetent,⁵ and addicted physicians do not self-report. In one study,⁵ almost 3000 physicians from several different specialties were surveyed. Thirty-three percent of those who knew that a colleague was impaired did not report that colleague. The reasons given for not reporting colleagues included a sense that someone else was addressing the issue, that nothing would be done with the information, and that there would be retribution for having reported.

Of those impaired physicians who are directed into a treatment program, some relapse and continue to practice under the influence. Because of the efforts taken to protect physician privacy, their patients may not, until a complication occurs, be aware of their physician's history of substance abuse.⁶ Systems have been created nationally to improve patient safety. An example of this is the recent decrease in resident work hours that was mandated with the goal of protecting patients from errors made by fatigued resident physicians.⁷

As a specialty, anesthesiology has not yet begun to look systematically for instances of drug diversion. Although there are reports of successes with some programs designed to identify diversion, there are currently few data regarding the frequency of diversion of controlled substances. Without measuring the frequency with which an event occurs, it is impossible to define accurately either its scope or the best means to manage it. Therefore, it is not surprising that there are significant differences in the ways programs monitor staff for substance

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abuse. Some programs require a drug test before hiring and have a written policy for those suspected of drug abuse. When an employee is suspected of substance abuse, he or she is referred to employee health service. If toxicology screens are positive for controlled substances, the employee is referred to the Committee on Physicians Health. This group monitors the employee's participation in treatment programs and then, upon return to the workplace, continues to monitor the employee's participation in outpatient treatment programs. The physician is screened with random drug screens and, should relapse occur, is removed from the workplace. In other programs, monitoring takes the form of random urine drug screens. Since institution of this policy, one program reports that there have been no cases of drug abuse.⁸ Advocates for this policy cite its efficacy. Detractors state that screening is an invasion of privacy. Tetzlaff et al⁹ have described a program instituted at the Cleveland Clinic that involves education, screening of anesthesia records to detect inappropriate handling of controlled substances, "for cause" testing, and random drug screening. All prospective employees agree to comply fully with this program before they are hired, and refusal to comply with any of the terms of the program provides grounds for discipline and possible termination. In some states, drug diversion of controlled substances results in reporting to federal authorities and loss of license to practice medicine.

As physicians equipped to design systems and checklists to improve safety, anesthesiologists have significantly decreased the mortality of their patients from 2 deaths for every 10,000 anesthetic procedures to 1 to 2 for every 300,000 procedures.¹⁰ Decreases in mortality have been attributed not only to improved monitoring but also to the establishment of practice guidelines.¹¹ Indeed, the use of system-wide policies, such as checklists, has decreased infection rates after central line insertion¹² and wrong-sided surgery.¹³ Increasingly, anesthesiologists are involved in or have initiated hospital-wide programs to improve the safety of patients in many aspects of their care.¹⁴

As a profession, we have been effective at decreasing risks from medical mishaps. We have not been as successful, though, in identifying early on those who are at risk of abusing controlled substances. Many practicing anesthesiologists know of someone who has abused drugs. Some of those likely know at least 1 physician who died as a result of an overdose, and others are aware of patients who have been mistreated because their physician either had taken the opioids meant for patient care or were intoxicated while providing patient care. The article by Berge et al³ only begins to open the Pandora's box of drug diversion by medical personnel. Because system-wide practices are not in place to detect drug

diversion, its frequency is likely underreported. Drug diversion is not a rare event. These authors report only 6 of the documented cases of drug diversion at Mayo Clinic over a 2-year period of time to demonstrate the variety of diversion settings and practices. In the near future, as diversion is more comprehensively monitored, there will hopefully be reports defining the actual frequency of this event. Once the magnitude of the problem is better appreciated, the success of programs set up to decrease its occurrence can be better monitored.

There are many facets to the institution-wide program outlined by Berge et al.³ The success of such a program requires education, cooperation across several hospital divisions and offices, personnel, time, and money. When diversion is suspected or identified, an investigation that includes drug testing is initiated. The investigation of someone suspected of diverting drugs is multilayered and includes securing evidence, a discussion with the employee's supervisor, a review of any records documenting handling of controlled substances, additional surveillance if necessary, and recurring meetings of a Drug Diversion Response Team to review findings. If an employee is found not to have diverted substances, the case is closed. Conversely, if an employee has diverted substances, he or she is quickly removed from the patient care area to avoid harm to other health care workers and patients. Findings are reported to the Drug Enforcement Administration, the state pharmacy board, and local law enforcement. Although establishing a program such as the one described by Berge et al³ requires significant resources, the cost of not doing so, in terms of physician and patient safety, is even greater.

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