

Drug diversion in healthcare

Prevention and detection for nurses

By Julie Nyhus MSN, FNP-BC

Drug diversion is a serious matter. However, convincing nurses is challenging because the problem is substantially underestimated, undetected, and underreported, according to Kimberly New, BSN, RN, JD, a specialist in controlled substance security and regulatory compliance at Diversion Specialists in Chicago, Illinois. Common drug diversion outcomes include damaged careers, civil and criminal penalties, infectious disease outbreaks, severe patient harm, and even death.

Drug diversion occurs when medication is redirected from its intended destination for personal use, sale, or distribution to others. It includes drug theft, use, or tampering (adulteration or substitution). Drug diversion is a felony that can result in a nurse's criminal prosecution and loss of license. "If patients are harmed, a nurse may risk permanent exclusion from working in healthcare," New says. "They may be sued by patients who've been denied appropriate pain relief or exposed to bloodborne pathogens as a result of tampering and substitution."

Diversion's scope

Diverting controlled substances is a far-reaching hazard with legal and financial implications that threaten patients, medical facilities, healthcare workers, and the public. The risk to patients includes unrelieved pain, inadequate care from impaired healthcare workers, and risk of infections from contaminated syringes. Medical facilities bear the burden of fines for failed safeguards, loss of eligibility for Medicare reimbursement, and compromised public trust. Healthcare workers who divert put themselves at risk for addiction, overdose, death, criminal prosecution, and civil malpractice suits. Public health consequences include infectious disease outbreaks (for example, from Hepatitis C virus or bacterial pathogens), increased substance use disorder, and substance use deaths and hospitalizations, all of which drive up healthcare and insurance costs.

The outcomes associated with drug diversion

are disheartening for everyone touched by this issue, especially patients. For example, between June and October 2020, a nurse in a fertility clinic in Connecticut tampered with approximately 75% of the fentanyl given to patients. The nurse removed the medication from the vials and refilled them with saline, resulting in painful surgical procedures for more than 20 women. Between August 2017 and March 2018, a Washington state emergency department nurse's unsafe injection practices during drug diversion transmitted Hepatitis C virus to at least 12 patients. Since 1983, according to the Centers for Disease Control and Prevention (CDC), drug diversion has led to dozens of outbreaks of Hepatitis C and other bloodborne infections.

These are the incidents we know about. Recent reports suggest that many drug diversion cases in healthcare organizations remain unreported. "There really are no accurate estimates," New says. "We know with certainty that diversion occurs in all facilities that handle controlled substances."

Preventing diversion

Awareness and recognition of drug diversion are first steps to prevention because "it's happening in every organization," says Ann Koeniguer, RPh, pharmacy operations manager at HCA Midwest in Kansas City, MO. Prevention starts with expecting to see diversion wherever controlled substances exist.

Many nurses have difficulty believing their colleagues may be involved in drug diversion. However, according to the National Council of State Boards of Nursing, approximately 15% of healthcare workers will struggle with drug dependence at some point in their careers, and it's the addiction that drives diversion in this population. Although nurses have equal rates of addiction and substance use disorder as the general public, increased access to controlled substances contributes to higher incidences of drug dependence.



Ryan Haumschild



Ann Koeniguer



Kimberly New



Barb Nickel



Susan Paparella

Reduce waste to impede diversion

New says that drug diversion most commonly occurs during wasting. Reducing the need to waste medications and properly wasting can help circumvent diversion.

Koeniguer adds that defeating drug diversion requires a multidisciplinary approach. "One profession can't address this alone," she says. When nursing and pharmacy departments collaborate, drug diversion can be better prevented, reducing the need for detection. Pharmacy departments should focus on providing the smallest incremental dose and multiple dosage forms, so there's no need for nurses to waste.

According to Ryan Haumschild, PharmD, MS, MBA, director of pharmaceutical services at Emory University Hospital Midtown, in Atlanta, his job as a pharmacist is to support nursing by providing the most accurate doses possible and not giving excess medication that needs to be wasted or returned. "Ready-to-use doses allow for less medication manipulation and reconstitution by the nurse. That's safer for everyone; it reduces the amount of waste so there's less liability and concern about the excess medication."

Wasting at the cabinet when the medication is removed is best practice, New says. A dedicated controlled substance waste receptacle should be present in all areas where controlled substances are kept. These receptacles bind the drug and make waste diversion nearly impossible. Nurses should avoid using drug disposal methods—including wasting medications into sinks, toilets, plants, or sharps containers—that haven't been approved by the Environmental Protection Agency (EPA).

Items to properly waste—with a witness—include remaining medication in single-use vials or pre-filled bags and syringes (for example, patient-controlled analgesia), unused or expired medications, and fentanyl transdermal patches.

Signs of diversion

Education about the behavioral and physical signs of drug diversion helps nurses recognize it. Methods for diverting controlled substances include

- stealing syringes or vials
- under-dosing patients
- replacing controlled substances with another product, such as saline
- taking PRN medications from patients or pulling duplicate doses
- creating false verbal orders
- failing to waste or document waste, or raiding sharps containers.

SEE SAY

something, something

Identifying signs of drug diversion can be challenging but is a crucial step in reporting and halting drug diversion in healthcare. According to Kimberly New, BSN, RN, JD, co-founder of Diversion Specialists, failing to report a concern could harm patients and leave a co-worker's life at risk. Diversion signs are subtle, and those who divert range from veteran staff members to new graduates and frequently they're well-respected high performers. Common signs of drug diversion may not show up early in the course of a diversion problem, but eventually, the person who is diverting may show some of the following signs.

Behaviors

- Wasting complete doses, wasting no doses, or heavy drug wasting
- Failure to document waste
- Frequently wasting drugs that never reach the patient (dropped medications, patient refusal, discontinued orders)
- Repeatedly wasting with the same person as a witness (called a "waste buddy")
- Repeatedly holding waste until the end of a shift or carrying medications in pockets
- Frequently asking colleagues to sign off on waste they didn't witness
- Paying extra attention to or entering patients' rooms who are receiving controlled substances
- Reviewing the medication orders of patients not assigned to them, helping colleagues medicate their patients, or volunteering to administer narcotics to patients
- Frequently asking for supplemental orders for controlled substances or pulling PRN medications
- Altering telephone or verbal medication orders
- Frequent charting or medication errors
- Sloppy documentation, omissions, and care inconsistencies
- Recurrent mistakes and poor judgment, variable work performance
- Forgetfulness, drowsiness, malaise, euphoria, anxiety, depression, insomnia, paranoia
- Blaming others or the environment for errors
- Deteriorating personal relationships, frequent personal crises, isolation, volatility, or sullenness
- Taking a large number of sick days, arriving late to work, or frequent no-shows
- Extended or frequent breaks and disappearances during shift
- Volunteering for overtime or coming to work on days off

Physical

- Physical signs of opioid use disorder can include constricted pupils, sweating, chills, runny nose, anorexia, itching and scratching, vomiting, diarrhea, or needle tracks
- Blood on scrubs around arms or legs
- Wearing long sleeves even in warm weather

Reducing the need to waste medications and properly wasting can help circumvent diversion.

- General signs of diversion include
- patients complaining of unrelieved pain or not receiving medications that have been documented as administered
- drug-related items found in staff bathrooms or breakrooms
- controlled medications with broken or unsecured caps or found in cabinets out of exterior packaging.

Other signs of drug diversion include individual behavioral and physical changes. (See *See something, say something.*)

Addressing opportunities for diversion

Many access points to medications exist, and proper handling of controlled substances requires several steps depending on the facility. When a nurse justifies even a single alteration from protocol or best practice, that behavior allows an opportunity for diversion, especially if that variance occurs when the drug is wasted.

According to Barb Nickel, APRN-CNS, CCRN, CRNI, member of the Infusion Nurses Society (INS) Standards of Practice Committee 2021, common barriers to proper wasting include interruptions, need for efficiency (for example, pulling a medication ahead of time), lack of supplies in the drug room (for example, no dedicated controlled substance waste container), being too busy, or the inability to find someone to witness waste. When confronted with these hurdles, nurses may create workarounds or deviations from best practice with the intention of maintaining quality patient care despite the snag. "But once a workaround is allowed, you've created a bad practice," Nickel says.

"If you're following best practice by performing the INS standards, diversion is quite difficult," Nickel says. Adhering to INS standards of sterility, accurate dosing, and proper compounding and preparation of parenteral solutions and medicines is key.

Many nurses may not recognize how their behaviors contribute to diversion potential. Susan Paparella, MSN, RN, vice president of the Institute for Safe Medication Practices, says nurses "may leave themselves or their colleagues vulnerable to issues regarding controlled substance diversion."

Common bad practices include failing to log out of the automated dispensing cabinets (ADC) and signing off on a waste you didn't witness. "People who divert understand and watch. When you don't log out of a drug cabinet, someone can come behind you and remove drugs under

your name. Nurses should intentionally log out every time," Nickel says.

According to Nickel, nurses who are willing to witness a waste they didn't actually see should do two things: Include "not visualized" in the ADC's comment field and create an incident report, not with the intent of reporting the person but to alert administration that something abnormal happened that may impact patient safety.

Any alteration in best practice, especially if the action moves the nurse out of their scope of practice, allows for diversion and places the nurse at professional risk. For example, New described two common and risky practices when using the ADC: removing the medication before it's needed and removing it before a documented order has been received. Pulling a controlled substance early for any reason increases the risk for diversion and places the nurse's license in jeopardy should an issue arise.

"Many facilities have few specific policies and procedures regarding nurses and handling controlled substances," New says. Policies should specifically address when to pull controlled substances, where and how to waste them, how long you have to administer a medication after pulling it, under what circumstances a complete dose is wasted, and how soon a medication should be wasted after it's administered. Not having a clear understanding of the proper steps for wasting controlled substances leaves room for drug diversion.

In addition to recognizing faulty practices that contribute to diversion, nurses must hold colleagues accountable by speaking up. New has interviewed staff after diversion incidents who admitted they "felt something seemed off, but they didn't want to ruin the person's career or life unless they were 100% sure." Reporting suspicions to a supervisor is crucial for leadership to manage diversion effectively. "You may be concerned about reporting a colleague, but the reality is your report may be the last piece to the puzzle because others have already reported concerns," New says. (Visit myamericanurse.com/?p=77058 to learn about reporting requirements.)

Detecting diversion

Detecting drug diversion can happen only when proper controls are in place. Securing controlled substances means inventory must be managed via various monitoring systems, such as ADCs, locked cabinets, pharmacy vaults, and periodic counts.



Red flags that may point to diversion include delays between pulling and administering or administering and wasting the drug, frequent ADC overrides or irregular ADC reports, wasting large amounts or undocumented waste, and higher patient pain scores documented by certain staff. Observation using surveillance cameras and monitoring systems can help deter drug diversion activities or capture risky behaviors such as badge sharing, workarounds, pocketing medications and waste, or pilfering from sharps and waste containers.

Promoting a safety culture is key to diversion detection. Nickel encourages nurses to understand why policies and procedures are in place. "It's not just about safe medication delivery, it's also about anti-diversion, which is a bigger issue than we know," she says.

When healthcare workers buy into a safety culture, diversion can be detected earlier and those who divert have better outcomes. (See *Helping colleagues recover*.)

Diversion rarely surfaces as a one-time event. According to New, patterns over a period of time are what point to diversion. "There is poor practice, and there's intentional diversion. You owe it to yourself, your colleagues, and your patients to do things the right way and not to develop workarounds," she says. "Workarounds facilitate diversion."

In summary, nurses can implement these strategies to promote anti-diversion:

- Use controlled substances in dose sizes that minimize waste.
- Use as small a dose as possible to relieve pain.
- Use prefilled syringes in ready-to-use doses closest to what's needed.
- Avoid range orders for controlled substances because they promote waste.
- Waste immediately; delays can increase the risk of diversion.
- Know your organization's wasting policies.
- Understand the symptoms of substance use disorder and what to do when you see it.
- Pay attention to documentation, workflow, and timing.
- Dispose of drugs safely per EPA requirements.
- Speak up when you suspect diversion.

Contributing factors

The Drug Enforcement Administration recognizes five classes of frequently abused drugs: opioids, depressants, hallucinogens, stimulants, and anabolic steroids. However, opioids have a high long-term dependency risk profile, and be-

Helping colleagues recover

Reporting suspicious behavior isn't betrayal, it's a critical tool for preventing drug diversion and saving a life. "Nurses tend to protect their own and don't easily believe their colleagues could divert," says Barb Nickel, APRN-CNS, CCRN, CRNI, member of the Infusion Nurses Society Standards of Practice Committee 2021. Remaining silent isn't the compassionate approach, especially when help is available.

According to the National Council of State Boards of Nursing, many state boards offer nondisciplinary programs that include rehabilitation and treatment. These alternatives to traditional discipline remove the nurse from providing patient care until recovery and safety to practice have been confirmed. Scientific evidence demonstrates the effectiveness of early intervention and treatment of substance use disorders.

According to Kimberly New, BSN, RN, JD, a specialist in controlled substance security and regulatory compliance at Diversion Specialists, staff should have the option to self-report. "Providing self-reporting options or employee assistance programs for staff when they're getting burned out or feeling stressed is important," New says. "These resources are out there, and there's no reason to feel ashamed or embarrassed to seek help. It's better than crossing the line into diversion."

tween 1999 and 2018, nearly 450,000 people in the United States died from opioid overdose, spurring a national crisis. Opioid misuse is a major driver of drug diversion, especially since fentanyl, a potent opioid, is the most commonly diverted drug.

Diversion driven by addiction worsened during the COVID-19 pandemic, New says. When the pandemic hit, healthcare operations deviated as the need for more and different drugs increased, intensive care units expanded, and new healthcare staff were given access to drug cabinets. "Some facilities bypassed diversion prevention measures due to preparations for the COVID-19 surge, and this has facilitated diversion," New says.

As the global pandemic and economic recession linger, profiting from drug diversion remains a temptation alongside addiction. Add to that an evolving substance abuse landscape within a relentless opioid epidemic, and it's clear that drug diversion is long overdue for a healthcare reckoning. According to Paparella, "Every organization who prescribes, stores, dispenses, and administers medications is at risk. Never believe it's not happening where you work." ■

Access references and additional resources at myamericanurse.com/?p=77058.

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Reporting requirements

Appropriate responses to drug diversion include creating a culture where reporting is encouraged and where prompt reporting to enforcement agencies is routine. When a nurse suspects diversion or impairment, patient safety concerns require that it be reported. Good-faith concerns should be communicated to supervisors or diversion specialists. After that, the healthcare facility's responsibility is to investigate and report diversion to the Drug Enforcement Administration per federal regulation 21 CFR 1301.76:2014 and state regulatory professional boards. Depending on the situation, regulatory requirements also may include contacting these agencies:

- law enforcement
- pharmacy board
- Food and Drug Administration Office of Criminal Investigations for tampering cases
- Office of Inspector General.

Resources for nurses

- **American Society of Health System Pharmacists.** *ASHP Guidelines on Preventing Diversion of Controlled Substances*
ashp.org/-/media/assets/policy-guidelines/docs/guidelines/preventing-diversion-of-controlled-substances.ashx
- **RN.org.** *Drug Diversion and Best Prescriptive Practices.*
rn.org/courses/coursematerial-10012.pdf
- **Institute for Safe Medication Practices.** Best practices for the safe and cost-effective management of controlled substances.
ismp.org/events/best-practices-safe-and-cost-effective-management-controlled-substances