



HOSPITAL INFECTION CONTROL & PREVENTION

THE TRUSTED SOURCE FOR THE INFECTION PREVENTIONIST FOR MORE THAN FOUR DECADES

FEBRUARY 2016

Vol. 42, No. 2; p. 13-24

→ INSIDE

Drug Diversion Special Report

Four HCV+ drug-diverting healthcare workers transmit virus in separate outbreaks . . . 17

Drug diverters may be top performers, showing no outward signs of addiction. 19

Feds charge compounding pharmacy linked to 2012 meningitis outbreak 20

CMS levies penalties on 724 hospitals for failure to prevent enough infections, HACs 21

CDC hiring good people to provide Ebola training in Africa. 23

AHC Media

Trail of tears: Fired drug-diverting HCWs free to find another hospital

Hospitals fear liability, but prosecuting diverters protect patients

By Gary Evans, Executive Editor

A nurse stealing morphine by replacing it with saline in a medication vial may not have realized she was colonized with *Serratia marcescens*, a gram-negative bacteria that would soon find its way into the bloodstreams of a cluster of patients administered the contaminated solution. The insult of denied pain treatment is followed by the injury of infection, which proves fatal in one patient.

That is the scenario currently under investigation at a Wisconsin hospital, the latest in a recurrent series of outbreaks linked to drug-diverting healthcare workers. (Please see “*Serratia outbreak linked to drug diversion*” on page 17.)

More often, these cases involve

hepatitis C virus, and it is particularly shocking to see how many patients can be endangered by a single healthcare worker. Over the past decade, outbreak investigations have documented more

than 100 infections and nearly 30,000 potentially exposed patients stemming from drug diversion in U.S. healthcare facilities, a CDC study reveals.¹

As disturbing as those numbers are, it should be noted at the outset that while protecting patients is paramount, nurses also emphasize the ethical obligation to try to get their addicted colleagues into treatment: “Drug diversion is a symptom of the disease of addiction . . . a treatable disease.”²

Encouraging healthcare workers with an addiction problem to seek treatment may be one of the best ways

“MORE THAN 100,000 DOCTORS, NURSES, TECHNICIANS, AND OTHERS STRUGGLE WITH ABUSE OR ADDICTION”

NOW AVAILABLE ONLINE! VISIT AHCMedia.com or **CALL** (800) 688-2421

Financial Disclosure: Senior Writer **Gary Evans**, Associate Managing Editor **Dana Spector**, Associate Managing Editor **Jonathan Springston**, and Nurse Planner **Kay Ball**, PhD, RN, CNOR, FAAN, report no consultant, stockholder, speaker’s bureau, research, or other financial relationships with companies having ties to this field of study. Consulting Editor **Patrick Joseph**, MD, is laboratory director of Genomic Health Inc, CareDx Clinical Laboratory, and Siemens Clinical Laboratory.



HOSPITAL INFECTION CONTROL & PREVENTION

Hospital Infection Control & Prevention®

ISSN 0098-180X, is published monthly by AHC Media, LLC
One Atlanta Plaza
950 East Paces Ferry Road NE, Suite 2850
Atlanta, GA 30326.
Periodicals Postage Paid at Atlanta, GA 30304
and at additional mailing offices.

POSTMASTER: Send address changes to:
Hospital Infection Control & Prevention
P.O. Box 550669
Atlanta, GA 30355.

SUBSCRIBER INFORMATION:
Customer Service: (800) 688-2421.
CustomerService@AHCMedia.com.
AHCMedia.com
Hours of operation:
8:30-6:00 p.m. ET Monday-Thursday,
8:30-4:30 ET Friday

ASSOCIATE MANAGING EDITOR: Dana Spector,
(404) 262-5470 (Dana.Spector@AHCMedia.com).

SUBSCRIPTION PRICES:
U.S., Print: 1 year with free AMA PRA Category 1 Credits™ or Nursing Contact Hours (12 issues), \$499. Add \$19.99 for shipping & handling. Online only, single user: 1 year with free AMA PRA Category 1 Credits™ or Nursing Contact Hours, \$449. Outside U.S., add \$30 per year, total prepaid in U.S. funds.

MULTIPLE COPIES: Discounts are available for group subscriptions, multiple copies, site-licenses, or electronic distribution. For pricing information, call Tria Kreutzer at (404) 262-5482. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue date. Back issues, when available, are \$78 each. (GST registration number R128870672.)

ACCREDITATION: AHC Media is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation. This activity has been approved for 15 nursing contact hours using a 60-minute contact hour.

Provider approved by the California Board of Registered Nursing, Provider #CEP14749, for 15 Contact Hours.

AHC Media is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AHC Media designates this enduring material for a maximum of 18 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

This activity is effective for 36 months from the date of publication.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Copyright© 2015 by AHC Media, LLC. All rights reserved. No part of this newsletter may be reproduced in any form or incorporated into any information-retrieval system without the written permission of the copyright owner. Copyright © 2015 by AHC Media. Hospital Infection Control & Prevention® and Infection Control Consultant™ are trademarks of AHC Media. The trademarks Hospital Infection Control & Prevention® and Infection Control Consultant™ are used herein under license. All rights reserved.

to save a caregiver's career before the disaster of an outbreak — the event that typically reveals the diverter.

“[Infection preventionists] would probably be the ones that would see an unusual cluster of infections and start investigating,” says **Melissa Schaefer**, MD, co-author of the study and a medical officer in CDC's division of healthcare quality promotion. “But ideally, we don't want it to get to a cluster of infections or an outbreak. That brings up the need for a really strong detection surveillance system in place — a response mechanism so that when there's an abnormality you can jump on it.”

The reported outbreaks of infections related to drug diversion by healthcare workers represent only a small snapshot of what is actually occurring, as many healthcare associated-infections (HAIs) are not being tracked back to drug diversion activity that is apparently rampant in the healthcare system.

“Making the connection between unexplained or difficult-to-detect infections on the one hand, and illicit, concealed drug diversion activities, on the other hand, is extremely difficult,” says **Joseph Perz**, PhD, co-author of the study and team leader of quality and safety in the CDC's division of healthcare quality promotion. “Our review also does not in any way adequately reflect the frequency of diversion by healthcare personnel in the United States. It has been reported that more than 100,000 U.S. doctors, nurses, technicians, and other health professionals struggle with abuse or addiction. Prescription drugs and controlled substances such as oxycodone and fentanyl are often involved.”

The experience of drug diversion expert **Kim New**, RN, JD, an independent consultant who

previously founded a program to detect diverters at the University of Tennessee Medical Center (UTMC) in Knoxville, suggests if one looks hard enough for diverters, she is very likely to find them.

“Initially, when I started the program [at UTMC] I was catching three or four per month and then it leveled out to one to two per month and pretty much stayed there,” she says “I have no reason to believe that what I experienced in that medical center is any different than what [is happening] at similar institutions. In fact, I work extensively with hospitals and health institutions across the country on this topic and I have heard from more than one academic medical center of approximately the same size that they were catching the same [number of diverters] when they had an aggressive program.”

The cost of silence

Compounding the problem, hospitals fearing liability or even the perception of some culpability in drug diversion incidents may be reluctant to report and prosecute diverters. Though this pattern may finally be changing, typically diverters are fired or allowed to resign — which leaves them free to find work in another facility.

“Unfortunately, the cases that fall through the cracks are the ones that aren't prosecuted,” New says. “Most institutions that I am aware of will only provide dates of employment when asked for a reference.”

“A flagrant example of the price of this silence was discovered in a New Hampshire hospital in 2012, when an HCV-infected traveling radiology technician was linked to a cluster of HCV patient infections.

The subsequent investigation uncovered a large HCV outbreak spanning several years, involving more than a dozen hospitals, and affecting thousands of patients in eight states. The technician was stealing syringes filled with narcotics, self-injecting, refilling them with saline, and placing them back into the procedure area, the CDC investigators reported.

“In the New Hampshire outbreak, we absolutely documented transmission in other hospitals in other states from this serial offender,” Schaefer says.

The tech, **David Kwiatkowski**, 35, was sentenced to 39 years in prison after listening to witness after witness describe how his actions harmed them or loved ones.

“I don’t blame the families for hating me. I hate myself,” Kwiatkowski said at the Dec. 2, 2013 sentencing in Concord, NH.³ Still, this was someone who once had thoughts of helping others, creating a dilemma for 71-year-old victim **Linda Ficken**, who was infected with HCV at a Kansas hospital where Kwiatkowski worked. Undergoing a cardiac catheterization in 2010, Ficken recalled the tech standing by her bedside during the procedure to apply prolonged pressure to a bad bleed at the catheter insertion site in her leg.

“On one hand, you were saving my life, and on the other hand, your acts are a death sentence for me,” she said at the sentencing. “Do I thank you for what you did to help me? Do I despise you for what your actions did and will continue to do for the rest of my life? Or do I simply just feel sorry for you being the pathetic individual you are?”

That outbreak has resulted in ongoing lawsuits involving the staffing agencies that employed the techni-

cian, as downstream facilities argue they should have been informed of the risk of hiring him. The multi-state outbreak of HCV infections identified in New Hampshire drew national attention, and is the most recent example of a healthcare worker being able to repeatedly gain employment — even after diversion was suspected or documented at previous worksites.

“Many institutions fear negative publicity — they fear civil and regulatory liability in these cases,” New says. “That is a legitimate concern, but we all have to do the right thing, and sometimes that means taking those risks. In order to protect patients from harm, we do have to report these things. There have been highly regarded facilities that have diversion cases that result in patient harm and then they are characterized in the media as being somehow at fault. Unfortunately, these cases can happen to anyone.”

One of the states caught up in the large HCV outbreak (Maryland) has labor immunity provisions that should shield institutions who report healthcare worker diversion incidents in good faith. In light of the outbreak, however, state investigators recommended additional legislation clarifying liability protection related to disclosure of negative references to prospective employers.⁴

“To protect patients from harm, there will have to be some way to promote all institutions reporting appropriately,” New says. “[Liability] barriers are going to have to be addressed in order to get everyone to report uniformly. There are medical board and nursing board implications. The nurse practice act in every state requires that if a nurse is aware of any illegal or incompetent practice then they have to report that or they are in violation.”

The tide may be turning on this issue, as more hospitals are pursuing prosecution rather than simply firing workers when diversion is uncovered, New says.

“From an infection prevention standpoint, the advantages of reporting to law enforcement are that many times there can be a discoverable deposition for that person much sooner than if you just report them to the nursing board,” New says. “Sometimes nursing board [investigations] can be very protracted, so subsequent employers wouldn’t know what has happened. If law enforcement gets involved and they pursue an arrest and criminal prosecution, many times that information could be discovered by a subsequent employer.”

Of course, infection preventionists play key roles in detecting outbreaks related to drug diversion, but they can also assist in preventing diverters.

“I advocate that infection prevention departments be apprised of every diversion event that occurs within an institution,” New says. “That doesn’t necessarily mean they have to investigate it, but if they keep a database, then later if they find three patients from a particular unit with an unexpected infection they can quickly look at the database and see [if an identified diverter worked in that unit]. You can connect the dots more quickly.”

Also note incidents involving diverted pills, as that healthcare worker may also have sought out injectable medications for personal use, she notes.

“I recommend that every hospital have a formal process, that they have a diversion committee and someone who is managing the day-in, day-out activities of the diversion program. It really is something that requires

daily attention,” New says. “It can be someone from pharmacy — many of my clients have a pharmacy tech as their diversion specialist. It can be a nurse, or someone in compliance, auditing, quality, or risk management. One of my clients has an occupational health nurse and a security officer that work together and do this type of surveillance. It really depends on the institution.”

Injection safety issues

IPs are becoming more involved in drug diversion prevention as part of the increasing focus on safe use of needles and vials, which was the subject of a Joint Commission sentinel alert⁵ last year, says **Vicki Allen**, MSN, RN, CIC, infection prevention coordinator at Beaufort (SC) Memorial Hospital.

“I’m seeing more involvement with infection control just because of the whole exposure situation,” she says. “The Joint Commission [alert] was actually on the misuse of vials, but in talking about it, obviously diversion is one of the misuses of the vial.”

As a result, many hospitals are now emphasizing the proper use of single-dose vials and limiting access to multidose vials that could be contaminated.

“The recommendation is to have single-dose vials whenever possible, and that’s going to decrease the risk that you have multidose vials sitting around that can be accessible to those looking [to divert],” Allen says.

Additionally, the common practice at her facility is for the pharmacy to provide the smallest dose possible for a given patient in the drug-dispensing container, she adds.

“If the patient is ordered morphine, the pharmacist is going to

supply the lowest dose vials that they can, keeping the volume as low as possible,” Allen says. “Decreasing the volume of the drug availability is one way we can control it. Another part of that is an audit. Make sure you are doing audits on your units to look for open vials and any kind of red flag that would clue you into some kind of diversion activity or patient exposure.”

With patient safety advocates pushing more involvement of patients and families in their medical care, there are also opportunities to assess pain levels that could raise the possibility of diversion, she adds.

“Taking pain medication away from patients is essentially harming them,” Allen notes. “By involving the patient and their families during rounding, this sort of thing can be addressed, [by asking], ‘Is your pain being controlled?’ You may trigger something — and that’s happening more and more.”

While it does appear that incidences of drug diversion are increasing overall based on media reports and journal articles, that may also be a surveillance artifact of looking harder for signs of diversion activity, she adds.

“It may be just that we are more aware,” she says. “It’s on the radar, so we are looking for it more. Patient safety is such a huge factor now. People are doing audits, more surveillance, mandatory reporting. The other thing is we have more oversight now by CMS.”

In that regard, a recently finalized hospital infection control survey for CMS inspectors does not cite drug diversion specifically, but focuses a lot of attention on the proper use of needles, syringes, and single-dose and multidose vials. Surveyors are instructed to observe injection safety practices in two separate units of the

hospital, if possible.

The CMS conditions of participation to protect patients from harm are certainly applicable to drug diversion, which the Joint Commission standards address, and is a felony in every state, New says.

“The standards are out there — there is a regulatory aspect for hospitals to meet, but most of the time, unfortunately, the standards are not specific enough [to require] the hospital to have the ‘ultimate’ program and security measures,” she says.

Regardless, hospitals should provide every incentive to establish strong diversion prevention programs. Patients infected or exposed by drug diverters may be entitled to considerable compensation. Citing the huge sums some juries have awarded to patients infected through injection safety lapses and oversights, a drug diversion expert says similar results may be coming for diversion outbreaks.

“[C]onsider that every healthcare facility that handles divertible drugs is at risk for an unscrupulous healthcare worker not only diverting drugs, but doing so in a manner that could harm patients and others,” **Keith Berge**, MD, an anesthesiologist at the Mayo Clinic said in an editorial.⁶ “Then the question becomes not ‘How can we afford a program to prevent and detect drug diversion by healthcare workers?’ but instead ‘How can we afford to not have such a program?’”

The risk of diversion could remain relatively constant in healthcare, given the toxic combination of addiction, medication, and access. “Unfortunately, the plague of drug diversions cannot be fully exterminated because highly intelligent, desperate, and motivated addicts (e.g., addicted nurses and physicians training in or working in drug-rich

environments) will continue seeking ways to obtain the highly desirable and abusable drugs housed within healthcare settings,” Berg warned. ■

REFERENCES

1. Schaefer MK, Perz J.F. Outbreaks of infections associated with drug diversion by US health care personnel. *Mayo Clin Proc* 2014;89:878–887.
2. Tanga HY. Nurse drug diversion and nursing leader’s responsibilities: Legal, regulatory, ethical, humanistic, and practical considerations. *JONA’s Healthcare Law, Ethics, and Regulation* 2011;13:13-16.
3. Ramer, H. Medical technician sentenced to 39 years in prison for infecting dozens with Hepatitis C. *Associated Press*. Dec. 2, 2013. Available at: <http://read.bi/1C8MmeY>.
4. Maryland Department of Health and Mental Hygiene. Public health vulnerability review: Drug diversion, infection risk and David Wiatkowski’s employment as a healthcare worker in Maryland. March 2013. Available at: <http://1.usa.gov/1yhvILw>.
5. Joint Commission. Preventing infection from the misuse of vials. *Sentinel Event Alert Issue* 52, June 16, 2014. Available at: <http://bit.ly/14WXZff>.
6. Berge KH, Lanier WL. Bloodstream infection outbreaks related to opioid-diverting health care workers: A cost-benefit analysis of prevention and detection programs *Mayo Clin Proc* 2014;89:866-868.

Serratia outbreak linked to drug diversion

A former nurse at the University of Wisconsin (UW) Hospital and Clinics in Madison, who allegedly diverted pain medication for personal use, may be linked to a cluster of infections among patients from the units where she worked, UW officials report.

In May 2014, infection-control staff at the hospital noticed a larger-than-average number of patients infected with the bacterium *Serratia marcescens*, the hospital said in a Dec. 23 statement. “Further investigation showed that in five patients, the infectious agent was genetically identical. One of those patients died.”

S. marcescens is a well-established source of healthcare infections and has caused numerous outbreaks. In the UW investigation, hospital staff identified that four of the five patients with the genetically identical infection had received pain medication from units where former nurse **Stefanie A. Jones** worked.

“Later, a connection between Ms. Jones and [a] fifth patient was identified, leading the hospital to contact the police, district attorney, licensing board, and other regulatory agencies with their findings,” UW Hospital said. “All patients or their families have been notified.”

The hospital declined an interview request, but legal documents cited by a Wisconsin newspaper indicate that police took biological samples from the 31-year-old nurse looking for *S. marcescens*. Jones is accused of diverting morphine and hydromorphone from syringes intended for patients at the hospital more than 40 times between October and March 2014, the newspaper reported.¹ The drugs were replaced with water or saline. In a bizarre twist, one of the patients infected with *serratia* — the “connection” cited by UW — is Jones’ father.

According to police, **Nasia Safdar**, MD, medical director of infection control at UW Hospital, told police investigators that Jones was likely to have been the host of the *serratia*, giving it to her father while caring for him. Safdar said it was possible the nurse contaminated the syringes with *serratia* while refilling them and placing them back into drug-dispensing machines. ■

REFERENCE

1. Treleven, E. Warrant: Nurse who stole morphine investigated for patient infection death. *Wisconsin State Journal* Dec. 25, 2014.

CDC: Thousands of patients put at risk by outbreaks caused by drug diverters in healthcare

Four HCV-infected healthcare workers infect a total of 84 patients in separate outbreaks

Drug diversion by healthcare workers is gaining recognition as a ubiquitous and poorly con-

trolled patient safety risk. Over the past 10 years, outbreak investigations have documented more than 100

infections and nearly 30,000 potentially exposed patients stemming from drug diversion in U.S. health-

care facilities, the CDC reports.¹

Investigators identified six outbreaks in healthcare settings caused by drug diversion, which typically involves theft of an injectable opioid drug intended for a patient. As addicted healthcare workers try to cover their tracks by replacing the targeted drug with saline, for example, medications can become contaminated and infect subsequent patients. In other cases, workers already infected with hepatitis C virus pilfer drugs from vials and syringes, transmitting the virus to unsuspecting patients through contaminated equipment and solutions. Four of the reported outbreaks resulted in HCV infection of 84 patients. Two outbreaks caused gram-negative bacteremia infections in 34 patients. All outbreaks occurred in one or more hospitals located in eight states.

Two outbreaks involved tampering with opioids administered by patient-controlled analgesia pumps, which introduced contaminants and resulted in gram-negative bacteremia infections. The remaining outbreaks involved workers who tampered with syringes or vials containing fentanyl. This involved, for example, self-injecting fentanyl from a syringe, replacing the contents with a clear solution such as saline, and returning the syringe to the procedure area or anesthesia cart.

“In each of these four outbreaks, the implicated professional was HCV-infected and served as the source,” says **Joseph Perz**, PhD, co-author of the study and team leader of quality and safety at the CDC’s division of healthcare quality promotion (DHQP). “Nearly 30,000 patients were potentially exposed to bloodborne pathogens and targeted for notification advising testing.”

Perz and co-author **Melissa Schaefer**, MD, reviewed reported

outbreaks of infections resulting from drug diversion in U.S. healthcare settings, using both published reports and data collected during CDC investigations.

The report almost certainly reflects an underestimate, as diversions and resulting infections can be very

BASIC MEASURES, SUCH AS PREPARING MEDICATIONS AS CLOSE AS POSSIBLE TO THE TIME OF ADMINISTRATION AND PROPERLY LABELING PRE-DAWN SYRINGES TO INCLUDE PATIENT NAMES, CAN ALSO MAKE IT MORE CHALLENGING FOR HEALTHCARE WORKERS TO TAMPER WITH OR SWAP OUT SYRINGES.

difficult to link epidemiologically.

“It can be difficult to tie infections to diversions, particularly the hepatitis ones because of the long-time period [of HCV disease progression],” says Schaefer, a DHQP medical officer at the CDC. “Most

patients with hepatitis C don’t develop symptoms of acute disease. It could be a few years before they know they were infected. All the tracking back of how and when they might have been exposed is really challenging. I don’t know if there is a great way to quantify how many infections related to diversion may be occurring. We don’t even have reliable estimates of the prevalence of diversion activities in healthcare in the United States in the first place.”

Diversion not suspected until outbreak strikes

Of the six healthcare workers implicated in the outbreaks, three were employed as technicians who lacked authorized access to the diverted medication. In most of the events, diversion was not suspected or identified until many patients had become infected. In several cases, the implicated healthcare workers were able to gain subsequent employment at other healthcare facilities, despite evidence or concerns about diversion.

As a result, thousands of additional patients were placed at risk, the CDC reported.

“There have to be important steps taken once diversion has been suspected or identified to prevent ongoing harm and downstream infections of patients at other healthcare facilities,” Schaefer says. “We outlined explicitly that there are expectations and requirements for reporting of theft of controlled substances to the DEA and engagement with the appropriate authorities.”

Contacting law enforcement improves case tracking and identification of diverters, with legal action likely to be uncovered through background checks if the worker seeks

employment at another healthcare facility.

In terms of prevention, the CDC says healthcare facilities are required to implement systems to guard against theft and diversion of controlled substances. It is important that all staff understand and comply with these protocols, acting in ways to minimize unauthorized access or opportunities for tampering and misuse.

“For staff, this can be summarized as ‘see something, say something,’ Perz says.

Basic measures, such as preparing medications as close as possible to the time of administration and properly labeling pre-drawn syringes to include patient names, can also make it more challenging for healthcare workers to tamper with or swap out syringes.

In addition, many cases of diversion may be prevented or detected through the use of tamper-resistant and tamper-evident syringes as well as automated dispensing cabinets with security and tracking features.

“A lot of facilities have the automated medication dispensing machines that track the logging of the medication,” Schaffer says. “Those are great, but they are no good if you don’t actually review the data that they are providing and use it in a

way to look for a problem.”

Pharmacy staff audits also may find something suspicious, as can testing to verify the identity or concentration of unused drugs that

PHARMACY
STAFF AUDITS
ALSO MAY FIND
SOMETHING
SUSPICIOUS, AS
CAN TESTING
TO VERIFY THE
IDENTITY OR
CONCENTRATION
OF UNUSED
DRUGS THAT ARE
RETURNED TO
THE PHARMACY.

are returned to the pharmacy or that healthcare workers discard. If diverters are identified, remove them from the clinical environment and bar access to controlled substances pending further investigation, the CDC authors recommend.

In addition, the facility should

ascertain the specific types of medications diverted and the mechanisms of diversion the worker used. If injectable medications were diverted and tampering is suspected, the CDC highly recommends blood-borne pathogen testing of the implicated healthcare worker.

“I instituted a policy where we were offering bloodborne pathogen testing to diverters that we caught,” says **Kim New**, RN, JD, an independent consultant who previously ran a drug diversion program at the University of Tennessee Medical Center. “I would have the paperwork and consent forms for HIV, Hep C and B testing at the time that I presented the consent form for the drug screen. In my experience, if their confidentiality is ensured and they understand the reason you are offering this, then many times they will go along with testing.”

The test results and the method of diversion can be used to determine whether patient notification is necessary in consultation with local or state health departments, the CDC advises. ■

REFERENCE

1. Schaefer MK, Perz JF. Outbreaks of infections associated with drug diversion by US health care personnel. *Mayo Clin Proc* 2014; 89:878–887.

Drug diverters may show no signs of addiction

‘Top performers ... even when they are diverting large amounts of opioids’

“Somewhat surprisingly, drug diverters in healthcare settings are not easy to spot by outward mannerisms, as most can appear perfectly collected and professional, even under the influence of opioids, says **Kim New**, RN, JD, an independent drug diversion consultant in

Knoxville, TN.

“When I work with institutions, my first question is ‘how many diversions have you uncovered in the last year and what methods did you use?’” she says. “I feel very uncomfortable when I hear hospitals are only picking up diversion through

reports of behavioral issues. Behavioral manifestations are typically a late sign. Usually, these folks are very high achievers. They are able to do a number of things and they are very well respected. They are top performers and continue to be that way even when they are diverting and using

large amounts of opioids. We need to be able to have a mechanism to pick up diversion before there are behavioral manifestations.”

Many facilities have automated dispensing cabinets with sophisticated data analytics programs, which will highlight suspicious transactions that occur and will also perform statistical comparisons of individuals on a particular unit against each other based on dose per transaction day, she explains.

“That’s where you really want to be finding signs of diversion and doing focused auditing based on those analytics,” New says. “Because you will find diverters much more quickly using data analytics than you will just waiting for someone to report something unusual.”

A case in point was a new graduate in nursing, beginning her first days of unsupervised care at the University of Tennessee, where New previously ran

a drug diversion program.

“On that first night that she worked independently she started diverting,” New said. “Three days after she started diverting, I was able to pick it up based on some statistical comparisons I was doing on a regular basis. She went from being totally normal among her peers to being an extreme outlier in a matter of days.”

The nurse was simply taking out duplicate doses, giving one to the patient, and taking one. In this case, the stress of taking on nursing responsibilities likely triggered the drug-seeking behavior, New says.

“I’ve caught a number of new grads, and there are different things that may lead to this type of activity,” she says. “Some of them have told me that they [previously] had legitimate prescriptions for opioids that they were simply not able to get off of — when the prescription ran out they started diverting.

But of course working in nursing, particularly as a new graduate, can be extremely stressful. Diversion may occur at that point because they are trying to cope with the stresses of their job.”

‘When you got nothing, you got nothing to lose’

While hospital oversight is one issue, regulations and even the threat of criminal charges may not be enough to deter a healthcare worker who is already ready to risk her job and livelihood by stealing drugs, New says.

Nor are diverters like recreational drug users who may only indulge themselves occasionally, she adds.

“In my experience in talking to a number of diverters ... once they cross the line and divert, there is no going back,” New says. ■

Feds lower the boom on compounding pharmacy

Second-degree murder charges in 2012 meningitis outbreak that killed 64 patients in nine states

A 131-count criminal indictment was unsealed Dec. 17, 2014, in Boston in connection with the 2012 nationwide fungal meningitis outbreak, the U.S. Justice Department announced.

Barry J. Cadden, owner and head pharmacist of New England Compounding Center (NECC), and NECC’s supervisory pharmacist **Glenn A. Chin** were charged with 25 acts of second-degree murder in Florida, Indiana, Maryland, Michigan, North Carolina, Tennessee, and Virginia.

As a general matter, and depending on particular state law, second-degree murder does not require the government to prove Cadden and

Chin had specific intent to kill 25 patients, but rather that they acted with extreme indifference to human life.

Contaminated vials of preservative-free methylprednisolone acetate (MPA) manufactured by NECC, located in Framingham, MA, caused the outbreak. The CDC reported that 751 patients in 20 states were diagnosed with a fungal infection after receiving injections of NECC’s MPA. Of those 751 patients, the CDC reported 64 patients in nine states died. Patient suffering and fear was a hallmark of the outbreak as investigators worked frantically to notify any patients that may have been administered the contaminated drugs.

“This has been a devastating outbreak for patients, their families and friends, healthcare providers and clinics,” **Marion Kainer**, MD, director of the Healthcare Associated Infections & Antimicrobial Resistance Program at the Tennessee Department of Health in Nashville, TN, said as the outbreak unfolded in 2012. “In Tennessee, we still have many patients hospitalized and suffering from complications and others who are exposed and frightened that they may become infected.” (See also *Hospital Infection Control & Prevention*, Dec. 2012).

The unsafe conditions alleged in the indictment include failures to properly sterilize NECC’s drugs, to

properly test the drugs for sterility, and to wait for test results before sending drugs to customers.

The unsanitary conditions alleged in the indictment include NECC's lack of proper cleaning and failure to take any action when its own environmental monitoring repeatedly detected mold and bacteria.

Further, the NECC allegedly

repeatedly took steps to shield its operations from FDA regulatory oversight by claiming to be a pharmacy dispensing drugs without valid prescriptions. The indictment alleges that NECC even used fictional and celebrity names on fake prescriptions to dispense drugs, the Justice Department reported. In fact, NECC routinely dispensed drugs in bulk

without valid prescriptions.

The details contained in the indictment are allegations, the prosecutors stressed. The defendants are presumed innocent unless and until proven guilty beyond a reasonable doubt. Outbreak victims with questions may call 1 (888) 221-6023 or email usama.victimassistance@usdoj.gov. ■

CMS hits hospitals for high rates of infections

Hundreds of U.S. hospitals this year will revisit their infection control and safety programs in hopes of producing results that will get them out of the penalty box.

The CMS announced at the end of 2014 that 724 hospitals were being penalized for high rates of three hospital-acquired conditions (HACs), including central-line associated bloodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs). The third HAC was serious complications, encompassing eight types of injuries.

Each hospital on the CMS list will receive a 1% reduction in hospital payments because they ranked among the lowest-performing 25% on the HAC measures. Penalties for Medicare's HAC reduction program, which was mandated by the Affordable Care Act, began for payments of all hospital discharges occurring after Oct. 1, 2014.

The combination of infection data transparency and CMS's Medicare financial penalties serves as a catalyst, says **Joan Hebden**, RN, MS, CIC, an infection preventionist at Wolters Kluwer Health in Madison, WI.

"In the case of CLABSI and CAUTI, the evidence-based literature supporting prevention efforts

was fairly robust in 2008 when CMS policy was implemented," Hebden adds. "However, good science does not always lead to consistent and sustained translation of evidence-based practices to the bedside."

EACH HOSPITAL ON THE CMS LIST WILL RECEIVE A 1% REDUCTION IN HOSPITAL PAYMENTS BECAUSE THEY RANKED AMONG THE LOWEST-PERFORMING 25% ON THE HAC MEASURES.

The 724 hospitals on CMS list may need to re-engineer their organizational culture to ensure a sustainable structure for team-led performance improvement interventions, she says.

New research suggests CMS's policy and its first few years of targeting HACs has had a positive effect on

reducing CLABSIs and CAUTIs.¹

A study of Medicare's HACs Initiative and its effect on CLABSIs, CAUTIs, pressure ulcers, and inpatient falls found an 11% reduction in the rate of change in CLABSIs and a 10% reduction in the rate of change in CAUTIs. There were no significant changes in rates of falls or pressure ulcers.

The study's findings suggest targeted infection outcomes were significantly reduced after initiation of the CMS policy in 2008, Hebden notes.

"This is a very important paper, suggesting that adoption of evidence-based prevention practices, along with financial incentives, can positively impact patient safety," Hebden says.

The CMS penalty list includes hospitals in most states, including dozens of hospitals in California, New York, Texas, and Florida. There are more than 50 university hospitals on the list, as well.

One of the university hospitals on the list is the University of Mississippi Medical Center (UMC). In the two years since CMS collected data used to assign the current penalty scores, the hospital has been hard at work establishing practices and procedures that are reducing the chance of hospital-acquired conditions, says

Charles S. O'Mara, MD, MBA, associate vice chancellor for clinical affairs at UMC.

For example, the academic health center formed HAC teams in mid-2014 and focused a global emphasis on hand washing, including monitoring.

"Monitoring is robust, with 28,000 hand hygiene observations at UMC in 2014," O'Mara says.

The health center also has taken steps to reduce CLABSIs by making changes in the insertion, maintenance, and collection of specimens from central lines. Starting in January 2015, the health center began a credentialing and training program for placing central lines, he adds.

"This process decreases variability by improving training and decreasing the number of individuals placing central lines," he says. "New ultrasound machines have been purchased to help with placement of each line, preventing another potential HAC, unintended punctures."

Also starting in 2015, the academic health center implemented a new bio patch to cover central line sites as part of its goal to achieve zero CLABSI, O'Mara adds.

"Our 2014 CLABSI rate met the CMS threshold to be penalty free, but current penalties are based on past performance," he says.

The health center's CAUTI rate decreased in 2014 and was only slightly above the CDC's expected number of infections, O'Mara says.

"To continue this downward trend in infections, a new skin cleanser has been introduced, and early timing of urine cultures to document the presence of UTI on admission is now practice," he adds. "Despite these efforts, we still have lots of work to do, and we are committed to the never-ending process of continual improvement with the

goal of not having any harm events. We want to avoid financial penalties imposed by CMS reimbursement rules, but much more importantly, we want to provide the best possible healthcare for Mississippians."

**IT'S POSSIBLE
THAT PUBLICLY
REPORTED
DATA WITHOUT
PROPER RISK
ADJUSTMENT
COULD RESULT
IN HOSPITALS
BEING PENALIZED
SIMPLY BECAUSE
THEY CARE FOR
SICKER PATIENTS.**

A health system hit particularly hard by the Medicare penalty list is Kaiser Foundation Hospitals, which has eight California hospitals that will be penalized this year.

The CMS penalty and listing does not reflect the Kaiser's safety philosophy, says **Patrick Courneya**, MD, executive vice president and chief medical officer for Kaiser Foundation Hospitals and Kaiser Foundation Health Plan.

"Patient safety is our top priority, and we take our hospital performance very seriously," he says. "We are actively reviewing the CMS data to better understand the results. If we identify areas where performance is not up to our expected level of clinical excellence and quality of care, we will take action."

In fall 2014, 32 Kaiser Permanente medical centers received an

"A" grade for patient safety from the Leapfrog Group, and 27 California Kaiser Permanente medical centers were recognized in 2013 by the Joint Commission's Top Performers on Key Quality Measures program as being among the nation's top-performing hospitals, Courneya adds.

A Kaiser Health News analysis found that academic medical centers were hit particularly hard by the penalty, with roughly half of them facing punishment. A separate Kaiser Health News analysis found that penalties were assessed against 32% of hospitals with the sickest patients and against only 12% of hospitals with the least complex cases.

For instance, the University of Mississippi Medical Center is the state's only academic health center and the state's safety net hospital, O'Mara notes.

"We face unique challenges, such as high case complexity and disease severity, large patient volumes with limited capacity of resources, and being the state's only highest level of care for trauma patients and neonates," O'Mara explains. "The current penalty scores were based on data collected about two years ago, and it is important to know that the scores are not adjusted for risk."

Risk adjustment bias?

It's possible that publicly reported data without proper risk adjustment could result in hospitals being penalized simply because they care for sicker patients, Hebden says.

"It is also possible that variability in surveillance methodology and billing coding practices in hospitals would result in biased outcome data," she adds. "Therefore, it is critical for the science of risk adjustment for healthcare-associated infections

to advance to ensure meaningful interpretation of publicly reported data.”

CMS’ HAC reduction program will benefit the nation’s healthcare industry because it pushes the industry to improve, Courneya says.

“We take the challenge head on

by measuring how we perform for our entire eligible population every three months, and taking action based on what we learn,” Courneya says. “Our most recent data, which reflects a much wider population than what CMS looked at, show all of our hospitals performing within

the expected range or better for these measures.” ■

REFERENCE

1. Waters TM, et al. Effect of Medicare’s nonpayment for hospital-acquired conditions: Lessons for future policy. *JAMA Intern Med* 2015;175:347-354.

CDC hiring IPs for Ebola jobs in West Africa

Infection preventionists needed to train healthcare workers in three nations

For those both compassionate and incredibly brave at heart, there are some job openings in West Africa. Though in retreat in some areas, Ebola continues finding victims in other areas. The government is enlisting infection preventionists.

A Few Good Recruits

The CDC is recruiting “motivated candidates with health, industrial hygiene, and program administration backgrounds to equip health systems in Sierra Leone, Guinea, and Liberia to stop the spread of Ebola in healthcare facilities, a major route of transmission,” the Association for Professionals in Infection Control and Epidemiology reports.

“Anybody with an infection prevention background — probably mostly nurses from U.S. hospitals — would definitely be a candidate for the kind of work that our team is recruiting for,” says **Ryan Fagan**, MD, MPH, a medical epidemiologist in the CDC’s division of healthcare quality promotion.

The CDC notes that international experience is preferred and the training is provided. Positions are based in Atlanta, with up to 50% West Africa travel. Duration depends on Ebola response duration.

“We’ll be reviewing applications and descriptions for infection prevention backgrounds and experience,” Fagan tells says.

“ANYBODY WITH AN INFECTION PREVENTION BACKGROUND — PROBABLY MOSTLY NURSES FROM U.S. HOSPITALS — WOULD DEFINITELY BE A CANDIDATE FOR THE KIND OF WORK THAT OUR TEAM IS RECRUITING FOR.”

“Our team is focusing on the training of healthcare workers countrywide in each of the three affected

countries. Our team is focusing on developing training courses to share with the ministry of health in each country.”

The CDC has been doing this type of training for months during the response, but is looking for people to take on jobs long term.

“[This would] not be just doing the initial training, but also follow-up at facilities [with] technical support as they continue to build these programs.”

Though it doesn’t sound as if IPs would be involved in direct patient care or contact, an ongoing epidemic of a deadly disease in Third World countries is not exactly a stable environment.

For more information, including application links and compensation information, contact eoevent162@cdc.gov. ■

CME/CE OBJECTIVES

Upon completion of this educational activity, participants should be able to:

1. Identify the clinical, legal, or educational issues encountered by infection preventionists and epidemiologists;
2. Describe the effect of infection control and prevention issues on nurses, hospitals, or the healthcare industry in general;
3. Cite solutions to the problems encountered by infection preventionists based on guidelines from the relevant regulatory authorities, and/or independent recommendations from clinicians at individual institutions.



HOSPITAL INFECTION CONTROL & PREVENTION

CONSULTING EDITOR

Patrick Joseph, MD

Chief of Epidemiology
San Ramon (CA) Regional Medical Center and
President, California Infection Control
Consultants
San Ramon

EDITORIAL ADVISORY BOARD

Kay Ball, PhD, RN, CNOR, FAAN

Associate Professor, Nursing
Otterbein University
Westerville, OH

Ruth Carrico, PhD, RN, FSHEA, CIC

Associate Professor
Division of Infectious Diseases
School of Medicine
University of Louisville

Patti Grant, RN, BSN, MS, CIC

Director: Infection Prevention/Quality
Methodist Hospital for Surgery
Addison, TX

Allison McGeer, MD,

Professor, Dalla Lana School of Public Health,
University of Toronto
Director, Infection Control and Microbiologist,
Mount Sinai Hospital, Toronto

William Schaffner, MD

Chairman
Department of
Preventive Medicine
Vanderbilt University
School of Medicine
Nashville, TN

Connie Steed, MSN, RN, CIC

Director, Infection Prevention
Greenville Health System
Greenville, SC

Katherine West,

BSN, MEd, CIC
Infection Control Consultant
Infection Control/
Emerging Concepts
Manassas, VA

Interested in reprints or posting an article
to your company's site? There are numerous
opportunities for you to leverage editorial
recognition for the benefit of your brand.

Call us: (800) 688.2421

Email us: Reprints@AHCMedia.com

For pricing on group discounts, multiple copies,
site-licenses, or electronic distribution please
contact:

Tria Kreutzer

Phone: (800) 688-2421, ext. 5482

Email: Tria.Kreutzer@AHCMedia.com

To reproduce any part of AHC newsletters for
educational purposes, please contact:

The Copyright Clearance Center for permission

Email: Info@Copyright.com

Phone: (978) 750-8400

CME/CE INSTRUCTIONS

To earn credit for this activity, please follow these instructions:

1. Read and study the activity, using the provided references for further research.
2. Scan the QR code to the right or log on to AHCMedia.com then select "My Account" to take a post-test. *First-time users must register on the site.*
3. Pass the online tests with a score of 100%; you will be allowed to answer the questions as many times as needed to achieve a score of 100%.
4. After completing the test, a credit letter will be emailed to you instantly.
5. Twice yearly after the test, your browser will be directed to an activity evaluation form, which must be completed to receive your credit letter



CME/CE QUESTIONS

1. **According to Joseph Perz, PhD, co-author of a study by the Centers for Disease Control and Prevention, approximately how many U.S. healthcare workers struggle with drug abuse and addiction?**
 - A. 35,000
 - B. 75,000
 - C. 100,000
 - D. 140,000
2. **Drug diversion expert Kim New, RN, JD, said one problem is that drug diversion in healthcare settings is a misdemeanor in many states.**
 - A. True
 - B. False
3. **Kim New, RN, JD, said in her experience with drug diverters they are:**
 - A. always late for meetings.
 - B. frequently sweating.
 - C. able to only occasionally use drugs.
 - D. usually top performers.
4. **The CMS penalized hospitals for high rates of hospital-acquired conditions, including which infection?**
 - A. VAPs
 - B. catheter-associated urinary tract infections
 - C. *Clostridium difficile*
 - D. All of the above