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INSIDE

Alarming Increases in ED Visits for Opioid Overdoses Highlight Need for Robust Solutions

Rhode Island moves forcefully to tackle the opioid epidemic, leveraging frontline providers, state health authorities, and law enforcement in a system of surveillance and response

Startling new ED-based data unveiled by the CDC clearly show much more must be done to stem a rising tide of opioid overdoses in the United States. Specifically, the CDC reports that the number of patients with opioid overdoses treated in the ED increased by 30% between July 2016 and September 2017. These increases were seen in all regions of the country, although particularly hard hit were Midwestern states, which reported a 70% increase.

In a media briefing about the new statistics, **Anne Schuchat**, MD, the acting director for the CDC and acting administrator for the Agency for Toxic Substances and Disease Registry, noted that opioid overdoses are increasing in most states for both men and women, and in most age groups. "We're currently seeing the highest drug overdose death rates ever recorded in the United States, driven by prescription opioids and by illicit opioids such as heroin and illicitly manufactured fentanyl," she explained. "In 2016, there were more than 63,000 drug overdose deaths and more than 42,000 of those deaths involved an opioid. This means that, on average, 115 Americans died each day from an opioid overdose involving prescription or illicit opioids in 2016."

The data stem from a CDC Vital Signs report, drawing from EDs in 52 jurisdictions in 45 states. Out of 91 million ED visits, Schuchat noted there were 142,557 suspected overdoses involving opioids. "The largest increases were in Wisconsin, at 109%, which means the rate more than doubled there," she said. "A similar rise of 105% was seen for Delaware."

Three states (Massachusetts, New Hampshire, and Rhode Island) showed modest decreases in ED visits for opioid overdoses, although the

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decreases were not statistically significant. However, such visits declined by 15% in Kentucky, a change that is not yet well understood by investigators.

The biggest increases were seen in large metropolitan areas with populations of more than 1 million residents. Schuchat noted that in these areas, overdose-related ED visits increased steadily in each successive quarter for a total increase of 54%. She also stressed that for every fatal overdose, there were many more non-fatal cases, representing a big opportunity for emergency providers to intervene.

"Research shows that people who have had at least one overdose are more likely to have another," Schuchat said. "If the person is seen in the ED, we are presented with an opportunity to take steps toward preventing a repeat overdose, ideally linking the individual to care and potentially preventing an overdose death, and ideally alerting community partners to opportunities to improve prevention in the surrounding areas." *(See also: The surgeon general urges clinicians to take a role in ending addiction stigma, p. 53.)*

Take Steps to Standardize Care

In fact, in some pioneering states, emergency providers have moved forcefully to work with public health authorities, law enforcement, and community partners to address the high number of opioid overdoses, and connect patients who have overdosed with effective treatment. For example, in a CDC Vital Signs Town Hall held on March 13, presenters from Rhode Island discussed their initiative to combat one of the highest opioid overdose rates in the country. The effort began with a strategic plan aimed at reducing the prescription of opioids while expanding access to naloxone, medication-assisted treatment (MAT), and resources to support recovery for individuals with opioid use disorders.

"Recognizing the unique and vital role of hospitals and EDs, in 2017 the Rhode Island Department of Public Health and the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals released levels of care for Rhode Island hospitals for treating overdoses and opioid use disorders," explained **Elizabeth Samuels**, MD, MPH, an emergency medicine physician and the levels-of-care implementation lead for the Rhode Island Department of Health. "The levels of care outlined three different tiers of service for hospitals and EDs to provide care for patients with opioid use disorder, and after having had an opioid overdose."

Hospitals categorized or certified at the tier 3 level, the most basic level of care, must ensure they are adhering to a discharge planning law mandated throughout the state that requires hospitals or EDs to contact a patient's emergency contact and primary care provider (PCP). Level 3 also requires:

- standardized substance use disorder screening for all patients;
- education on safe opioid storage and disposal for all patients who are prescribed opioids;
- the dispensing of naloxone to all patients found to be at risk according to a clear protocol;
- the offer of peer recovery support services;
- active referral to appropriate community providers;

• compliance with 48-hour reporting of overdoses to the Rhode Island Department of Health;

• laboratory drug screening, including screening for fentanyl, for patients who overdose.

Level 2 facilities must meet all the criteria of level 3 hospitals, and they also must provide comprehensive standardized substance use assessment. Further, they need to maintain capacity for the evaluation and treatment of opioid use disorder with the support of addiction specialty services.

Level 1 facilities must meet the criteria for level 3 and level 2 facilities and also maintain the ability to initiate, stabilize, or re-stabilize patients on MAT. Further, these facilities need to evaluate and manage MAT, and ensure the transition of patients to community providers to facilitate recovery.

Samuels has led the effort to implement the levels of care in the state's 12 licensed hospitals, and this effort is ongoing.

"As of today, nine hospitals are now certified. Seven hospitals have achieved level 1 certification and two have achieved level 3," she said. "There are three remaining hospitals to certify. Two level 3 hospitals are currently under review and one is in process."

Collect and Report Data

A key component of the state's surveillance and response system to the opioid overdose epidemic is the requirement for hospitals to report overdoses to public health authorities within 48 hours. This step was initiated by the Rhode Island Department of Health Emergency Regulation, and then passed by state legislators in 2014.

EXECUTIVE SUMMARY

The CDC has unveiled alarming data showing that ED visits for opioid overdoses increased by 30% between July 2016 and September 2017. While it is clear that more action must be taken to address the problem, some pioneering states already have taken steps to respond to the opioid epidemic in a coordinated way. For example, in Rhode Island, hospitals and EDs are working with state health authorities and law enforcement to address the epidemic of opioid overdoses in the region. The approach involves standardizing the care provided to patients who present with opioid use disorders, quickly reporting on cases of suspected opioid overdoses in the ED, and coordinating a system of surveillance and response.

• Rhode Island is in the process of certifying all the hospitals in the state that offer standardized care for patients who have presented with opioid overdoses or opioid misuse disorders. The state has established three tiers of care that hospitals can achieve.

• The state also requires hospitals and EDs to report cases of suspected opioid overdoses to the Rhode Island Department of Health within 48 hours.

• A multidisciplinary team reviews the data on a weekly basis so that affected regions of the state can be alerted to increases in overdose activity.

• The data collection requirements have proved challenging to hospitals, although the state is working to streamline the reporting process. Also, the use of on-site champions has helped the state implement the levels of care approach.

Samuels noted that the reporting is facilitated with the use of an online tool that has been revised continuously to improve data quality, accuracy, and usability for surveillance. The data are made available, along with other resources, on a public dashboard, www.PreventOverdoseRI.org, which is maintained by the Brown University School of Public Health in Providence, RI.

"On this dashboard, you can do aggregate reports from 48-hour reporting, including monthly changes in ED utilization for overdoses, reported naloxone distribution, and the provision of on-site counseling at the time of the ED visit," Samuels shared. While the reporting is vital to the state's efforts to carry out surveillance and response activities, Samuels acknowledged that the task has proved challenging to hospitals, especially smaller facilities with fewer resources. "It requires the manual extraction of data and the manual filling out of the [reporting] form, which is not specifically onerous in itself, but does take staff time to complete," she said. "We have been trying to minimize and streamline this process by narrowing down the data we need for response to the epidemic, and we are exploring some other ways to streamline the data transmission process."

Nonetheless, the data give the state current information on overdose activity that authorities can then act on, explained **Meghan McCormick**, MPH, the lead epidemiologist for the state's drug overdose prevention program. "Our surveillance response intervention

[SRI] team is a collaboration between staff at the Rhode Island Department of Public Health, the Department of Behavioral Health Care, Disabilities, and Hospitals, and the Rhode Island Fusion Center, [a multidisciplinary resource that works with state and local agencies as well as the Department of Homeland Security to assess threats, facilitate effective decision-making, and empower effective emergency response]," she said. "We meet every Tuesday to review the past week's overdose data. Recommendations based on emerging trends are made and stakeholders are alerted to any increased overdose activity."

Monitor, Respond to Data

During the SRI meetings, participants review data from multiple sources, including toxicology reports, law enforcement alerts, and EMS data. However, McCormick stressed that most of the panel's response is based on the 48-hour reporting system, requiring hospitals to report any suspected opioid overdose within two days.

The system provides a treasure trove of information that has not been available before, McCormick observed. "Prior to the development of this reporting system, most of our information about people who overdosed was based on fatal overdoses, but a very small percent of overdoses resulted in fatalities," she said. "This system allows us to learn more about non-fatal overdoses and possibly prevent a subsequent overdose death."

One of the lessons the SRI team learned from regularly monitoring the data from the 48-hour reporting system is that even though Rhode Island is a very small state, different areas of the state experience increased overdose activity at different times, McCormick noted. "As a result of these regional differences, we divided the state into 11 regions based on a year and a half of 48-hour reporting data," she said. "Thresholds for normal overdose activity were set based on two standard deviations away from the weekly average for that region. If a region goes over that threshold, we send out a public health advisory to stakeholders and community partners to alert them of increased overdose activity in their area."

The SRI team is focused on leveraging the data further to respond more forcefully to overdoses in the community. "In December [2017], we brought in stakeholders [from] every city and town in the state, and helped them to think about the development of an emergency response plan specific to the overdose epidemic," McCormick shared. "We have received letters of intent from 31 municipalities planning to complete the emergency response plan. We have continued with technical assistance calls with these municipalities and are expecting completed emergency response plans in May."

The idea is to improve the response by municipalities when they receive a public health advisory regarding overdoses as well as longer-term planning to prevent overdoses in the future, McCormick explained.

Address Barriers

Perhaps not surprisingly, there have been a few roadblocks on the path toward implementing the levels of care at all the hospitals in the state. For example, Samuels noted that stakeholder engagement in the process probably was hampered initially by the fact that the levels of care policy was not written by the hospital or ED clinicians charged with implementing the required tasks. Ultimately, though, Samuels said the hospitals demonstrated dedication to integrating the policy requirements into their workflows and improving the standard of care they were providing to overdose patients.

"Given the high prevalence of deaths [from opioid overdoses], it is very common [for] people to have their own personal lives touched by the loss of a loved one or to know someone who has unfortunately lost a loved one," Samuels observed. "People were truly motivated to do something different to be able to provide innovative, comprehensive care to patients with opioid use disorder."

One continuing challenge has been the rising cost of naloxone. Some hospitals have been able to make a dent in these costs by purchasing the drug in bulk or by obtaining grants. "Hospitals that have been unable to provide naloxone physically at the time of an ED visit at a minimum will provide patients with a prescription," Samuels said.

There also have been scheduling challenges, especially for EDs that are initiating MAT. The clinics that offer MAT typically operate on bankers' hours while the ED treats patients on a 24/7 basis, with most overdose patients presenting in the evening hours, Samuels explained. "What has been successful in hospitals when they have implemented ED-initiated buprenorphine is the development of clear protocols with the development of clear routes of acquiring an

appointment or drop-in hours the next day with partnering MAT providers," she noted. "This is to ensure that patients do have follow-up after the ED visit."

By far the biggest barrier to the policy's implementation has been stigma, and this has been evident among hospital staff as well as some patients when it comes to MAT, Samuels advised. Staff training on the disease of addiction as well as evidence-based treatments has helped address the problem.

Leverage Champions

On the plus side, the presence of local champions has made a big difference in helping to implement the policy and alleviate challenges, Samuels stressed. "The champion has been a different person at each site. The champions have been ED directors, ED clinicians, social workers, nursing leadership, pharmacists, and hospital administrators," she said. "Community hospitals in particular have done a great job of leveraging their departments of social work and pharmacy, really [fulfilling] their full scope of practice and taking leadership on policy implementation."

Another key to the policy's success has been partnering, both externally between the state agencies, hospitals, and community-based organizations, and internally between the different departments in each hospital, including pharmacy, social work, psychiatry, and the ED. "Without these partnerships, the implementation would have failed," Samuels emphasized.

The next steps for the program involve improving the timeliness and efficiency of the surveillance data to help in the public health effort to address the opioid overdose epidemic. Samuels also has three hospitals left to complete certification in the levels of care process, but she noted that this task should be completed soon. Ultimately, the goal is to evaluate both the services that are offered to patients with opioid use disorder and those patients treated for an opioid overdose. Further, developers aim to assess the program's overall impact on mortality, recurrent overdoses, incarceration, and whether appropriate patients have initiated MAT. ■

SOURCES

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Surgeon General: Clinicians Must End Addiction Stigma, Use Evidence-based Care

During the CDC's Vital Signs Town Hall on coordinating the clinical and public health responses to opioid overdoses treated in EDs, U.S. Surgeon General **Jerome Adams**, MD, MPH, stressed the importance of recognizing that substance use disorder is a chronic disease that must be treated with the same skill, compassion, and urgency that clinicians use to treat other chronic health conditions. He noted that providers can play a role in ending the stigma associated with opioid addictions.

"Make no mistake about it: It exists among our colleagues as well as amongst the general public. I have seen it in my practice and in my day-to-day life," said Adams, who recounted some of his own experiences with addiction in his family. "Help everyone, especially patients and families, understand that this is a chronic illness and it impacts the brain. Recovery is possible, as is recurrence."

Adams called on healthcare professionals to make sure they put support in place to help patients recover. "All healthcare professionals, including physicians, physician assistants, nurse practitioners, dentists, social workers, therapists, pharmacists, and more, can play a role in addressing substance misuse and substance disorders not only by directly providing healthcare services, but also by promoting prevention strategies and supporting the infrastructure changes needed to better integrate care for substance use disorders into general healthcare and other treatment settings," he said.

To that end, Adams encouraged clinicians to consider providing medication-assisted treatment (MAT) in their own settings or to help connect patients in need of these services to a MAT provider. "Make sure you are aware of the evidence-based treatment programs and recovery supports in your community because we know [clinicians] can't do it alone, and don't expect [them] to do it alone," he said. "But we do expect [clinicians] to be able to refer individuals to appropriate resources in their communities to help them recover."

Adams made clear that he recognizes that finding a MAT provider who can deliver treatment when it is needed is an ongoing challenge for frontline providers. Indeed, he noted that only one in three specialty addiction treatment facilities even offers MAT as an option for patients with opioid use disorder. But he stressed that the science is clear about the fact that MAT works.

Consequently, when referring a patient with a substance use disorder to an addiction treatment provider, it is important for clinicians to make sure they are sending this person to a reputable provider, Adams advised. How can one be sure a provider is reputable? Adams noted that clinicians should look for the following elements:

- personalized diagnosis, assessment, and treatment planning;
- access to FDA-approved medicines;
- effective behavioral health interventions delivered by trained professionals;
- long-term disease management;
- coordinated care for other co-occurring diseases, such as HIV, hepatitis, or diabetes;
- recovery support services such as mutual groups and community services that can provide continuing emotional and practical support for recovery.

In addition to referring patients to appropriate treatment, Adams called on clinicians to raise awareness about the warning signs of opioid abuse and the availability of naloxone.

"Offer to co-prescribe naloxone to those taking opioids to manage chronic pain and to those who may be at risk or know someone at risk for an opioid overdose," he said. "Make sure you are aware of the 'standing order' laws and legal protections for prescribers and bystanders ... who administer naloxone when encountering an overdose situation in your state."

There are too many stories about people dying from overdoses because bystanders either didn't know how to access naloxone or they were worried about the legal ramifications if they moved to administer the drug, Adams observed.

Finally, Adams urged clinicians to think about prevention. "Start low and go slow when prescribing," he said. "Be cautious in prescribing opioids, benzodiazepines, and other medicines that, [with alcohol], can cause respiratory depression."

Further, Adams stressed that clinicians need to help patients understand the benefits of alternatives to opioids, and how to safely store and dispose of opioid medications.

Adams added that clinicians should make sure they understand and are using the *CDC Guideline for Prescribing Opioids for Chronic Pain* (https://bit.ly/2dsxtCz). "This really is the best practice and the key to helping us overcome the opioid epidemic," he said. "Unfortunately, there are still too many of our colleagues — individuals we work with on a day-to-day basis — who aren't utilizing the guideline." ■

Colorado Program Significantly Reduces Opioid Prescribing in 10 EDs During Six-month Period

Key to the pilot results is a new focus on providing alternatives to opioids for the treatment of five common pain pathways

To the doubters who maintain that a large-scale reduction in opioid prescribing in the nation's EDs is simply not realistic, check out what Colorado has accomplished. During a six-month period, a pilot group of 10 EDs set out to reduce the use of opioids by promoting alternative treatment approaches primarily focused on five common pain pathways: headaches, musculoskeletal pain, renal colic,

chronic abdominal pain, and extremity fractures/joint dislocations.

The goal of the effort, which was led by the Colorado Hospital Association (CHA), was to see if the pilot EDs could reduce their use of opioids by 15% between June and November 2017. The participating EDs far surpassed these expectations, reducing opioid prescribing by 36% when compared to the same six-month period in 2016, a level of achievement that amounts to 35,000 fewer opioid doses delivered.

Further, investigators have found that there was virtually no statistical difference between patient satisfaction scores recorded before and during the pilot program, alleviating concerns that large numbers of patients would be aggrieved if they did not receive opioids for their pain. In fact, many providers experienced an opposite reaction: patients expressing relief that they would not require opioids, having heard about the well-publicized risks associated with these powerful drugs.

Now armed with a proven approach for reducing the use of opioids in the emergency setting, the CHA and its partners on the project are poised to extend the approach to all the hospitals in the state. However, pilot developers have compiled guidelines, clinical tools, and a roadmap to follow for other hospitals and communities that would like to follow suit. *(See also: Shortages of injectable opioids causing adverse consequences for some physicians and patients, p. 59.)*

EXECUTIVE SUMMARY

A pilot group of 10 EDs in Colorado has shown impressive reductions in opioid prescribing by encouraging the use of alternatives to opioids (ALTO) in the care of five key pain pathways. Between June and November 2017, the pilot sites reduced the use of opioids by 36% when compared to the same six-month period in 2016. The Colorado Hospital Association (CHA), which championed the initiative, is moving to expand the ALTO approach used in the pilot to other hospitals in the state.

- The pilot ED sites focused on alternative treatment options highlighted in the Opioid Prescribing and Treatment Guidelines unveiled by the Colorado chapter of the American College of Emergency Physicians in 2017.
- In-person training on ALTO techniques was provided to physicians, nurses, and pharmacists at each of the 10 pilot sites in advance of the pilot.
- The 10 pilot sites will assist CHA in expanding the ALTO approach to all the hospitals in the state.
- Also on tap is a new CHA initiative focused on the treatment of addiction in the state that will include a pilot where EDs will initiate medication-assisted treatment (MAT) before providing a warm handoff to MAT treatment providers in the community.

Begin With Guidelines

The impetus for the pilot stemmed, in part, from a survey CHA conducted in 2016, asking all its member hospitals what they were doing to address the opioid epidemic in Colorado, and what CHA could do to help. "It was clear that everybody was doing a little work here and there, but nobody was doing consistent, standardized work in the ED, explains **Diane Rossi MacKay**, RN, MSN, CPHQ, CHA's clinical manager for quality improvement and patient safety.

In fact, survey participants indicated that the ED was their greatest concern regarding opioid safety, and more than 90% reported that they wanted to know how CHA could assist in this area. Consequently, CHA developed an Opioid Safety Steering Committee and forged partnerships with key stakeholders in the state, including the Colorado chapter of the American College of Emergency Physicians (ACEP), the Colorado Consortium for Prescription Drug Abuse Prevention, Telligen (the quality improvement organization for CMS in the region), and the Colorado chapter of the Emergency Nurses Association (ENA).

With these partners, CHA formed the Colorado Opioid Safety Collaborative to address opioid safety in Colorado's EDs, and the pilot emerged as a key first step in addressing the opioid epidemic in the state.

Fortuitously, the Colorado chapter of ACEP was already working on the issue, unveiling Opioid Prescribing and Treatment Guidelines that focus on four key areas: limiting opioid use in the ED, using alternatives to opioids (ALTO) when treating pain, reducing harm in the ED, and treating opioid addiction. Notably, the ALTO approaches highlighted in the guidelines borrow heavily from techniques pioneered in the ED at St. Joseph's University Medical Center (SJUMC) in Paterson, NJ,

which launched the country's first ALTO program in January 2016. "Most of the pathways that we use have been trialed and mastered [at SJUMC]," explains **Don Stader**, MD, FACEP, the associate medical director in the ED at Swedish Medical Center in Englewood, CO, and the physician educator for the pilot. "We are their proof of concept. Where they did it in an academic, level I trauma center, we took this and said 'let's see if we can put this into practice in all types of EDs.'"

Indeed, in selecting hospitals to participate in the pilot, CHA wanted to make sure that the list represented diversity. "We wanted to cover the entire state of Colorado to the best of our ability," MacKay observes. "One of the reasons for that is we wanted to make sure that the [results] from the pilot could be transferrable across all types of hospitals with all kinds of patients."

For example, while Swedish Medical Center is a level I trauma center, two of the other participating facilities — UCHealth Greeley Emergency and Surgery Center in Greeley and UCHealth Harmony Campus in Fort Collins — are freestanding EDs. Facilities in rural areas, such as Gunnison Valley Health in Gunnison Valley and Sedgwick County Health Center in Julesburg, were also among the 10 sites selected for the pilot.

Secure Higher-level Commitment

Bringing all the clinicians in 10 separate EDs up to speed on the ALTO techniques highlighted in the Opioid Prescribing and Treatment Guidelines was a big challenge, involving a series of on-site training sessions at each ED. "From a nursing perspective, what we did was develop PowerPoint presentations, communications scripts, and role playing," MacKay notes. "We presented to the nurses on how you talk to patients and family members who are perhaps used to receiving an opioid when they come in with migraine headaches or kidney stones."

On the nursing side, the trainers were from the ENA, so emergency nurses were talking and training with emergency nurses. Similarly, pharmacists provided training to pharmacists, and Stader delivered the training to physicians and advanced practice providers.

Administrative leaders at all the pilot sites had to first commit in writing to supporting the effort, a step that proved pivotal in securing buy-in from the clinical staff members, many of whom expressed concerns about the potential impact of ALTO techniques on patient satisfaction. Knowing that upper management was not only behind the effort, but also expected providers to change their prescribing practices, proved motivating, Stader observes.

However, Stader notes that most emergency providers were receptive to receiving guidance on steps they could take to address the opioid epidemic. "Many of the clinicians were very eager for education, and very eager for a way to do things differently," he says. "How we got them to a point where they were ready to implement ALTO [approaches] was through several different mechanisms."

First, the clinicians all had a chance to review the treatment guidelines, which provided background information on how they could use opioid alternatives for muscle pain or renal colic and other painful conditions. "The most important thing by far, however, was the in-person training, and we didn't only train the physicians and advanced service providers, we also trained the nurses — often at the same time," Stader notes. "I think that multidisciplinary training often times helps to break down barriers when it comes down to a clinician ordering a medicine ... so we got all the different practitioners speaking the same language and thinking the same steps when it came to different types of pain."

Provide Training

During the in-person training sessions, Stader reviewed each of the ALTO medicines and what the patient indications were for each drug, and also some of the new procedures he was encouraging practitioners to use such as trigger-point injections.

"I was able to tell them what my practice was, and they were able to raise their hands and ask questions about medicines they may not have used before or any concerns they had," he says.

For example, many clinicians were worried that IV lidocaine — one of the ALTO medicines that Stader has found to be effective in the treatment of renal colic — was dangerous. "When I reassured them that we were giving less than half of the toxic dose, that eased their worries," Stader notes.

Specifically, when a patient presents with renal colic, Stader often will provide a dose of Toradol (ketorolac tromethamine), followed by a long infusion of IV lidocaine. "I have usually been able to give my patients excellent relief, and the nice thing is we encourage the safe use

of Toradol," he says. "We used to blast everyone with 30 milligrams of Toradol, which is actually three times more than what you need. If you actually lower the dose, you are still able to get the same pain relief, but it gives you the ability to re-dose the same way you would with morphine."

Stader stresses that the ALTO approach he favors does not mean opioid-free.

"It means that we have so many more tools that we can reach into and treat that patient in front of us with further consideration of the underlying risk factors and underlying health," he says. "It really changes pain control back into a science."

For instance, Stader notes that there are psychological, social, and biological components to pain, all of which contribute to how a patient expresses his or her pain, or ranks his or her pain if given a scale of one to 10. Such factors can be important when determining the best treatment strategy.

"When I walk into a room, and the patient is just hysterical with pain — be there a really painful stimuli or something that you wouldn't objectively think is that painful — I ask myself whether this person has a psychological driver of pain," he says. "If the answer is yes, I may start with a small dose of Haldol, a non-addictive sedative, for that patient."

Stader notes that he has seen patients with all different types of pain report significant relief just from the calming effect on the psychological component of their pain. Early in the training sessions, one of the provider groups wanted to know how to tell patients that they would not be receiving a narcotic for their pain, and Stader responded with a list of how he often approaches the issue:

- First, Stader asks patients if they will be driving home. If they are, then he communicates that he will give them something that will not knock them out.
- Another strategy is to communicate to the patient that you are going to give them a medicine that will control their pain but not make them drowsy. "That is something that most patients are going to respond positively to," Stader advises.
- For patients who insist that they need something stronger than the ALTO medication, Stader tells them the medicines he is prescribing should be strong enough to control their pain, but if they do not control the pain effectively, then a traditional opioid still is an option.
- When patients are skeptical, Stader elevates the drug decision over his head by saying it is hospital policy or ED policy to use a non-opioid medication first. That typically removes conflict from the physician-patient interaction.
- For patients who are just in the ED to get their hands on narcotics, and who are not open to receiving help for an addiction, Stader will draw the line and say he is not comfortable prescribing a narcotic medication. These patients most likely will leave the ED at this point.

It is important to note that while some patients may express concerns about not receiving an opioid, there also are many patients who are relieved to hear that they will not be receiving narcotic medications. "That is a population that has been growing over the last few years," Stader observes. "You have this population that reads newspapers, is hyper-educated, and sees the danger of opioids because it has been written about so much, and they actually come in fearing an opioid. Sometimes, I have to convince them that an opioid is actually the right drug for them."

Identify Champions, Share Data

During the ALTO training sessions, practitioners received a start date and a directive to go out and integrate the new medicines and procedures into use. "How they put this kind of information into their practice varied from physician to physician, but they were able to take all of that data and all of the new tools and apply them to their practices with a lot of success," Stader says.

Every site had a physician champion with whom Stader would communicate. Often, this would be the medical director of the ED. The pilot sites also could communicate with each other through email on a listserv. "When there was a challenge, someone would put it on the email, and the hospitals would talk and communicate with each other," Mackay notes.

Not every physician was enthusiastic about taking steps to change their practice in line with the ALTO approach. In fact, even after all the ALTO education, Stader found that some physicians at his own hospital, Swedish Medical Center, still were prescribing four times as many opioids as the other providers. "What we did with that data is we showed it to the clinicians who were, in our minds, over-prescribing opioids, and we pointed out that they were the largest prescribers of opioids in the group," he explains. Stader then used the data-sharing interaction

as an opportunity to find out what concerns the providers had about ALTO, and what was holding them back from making improvements in this area. "We actually worked with our top three prescribers and got their prescribing down as well," he says.

This practice of sharing data and using the information to motivate change can be a particularly effective strategy with physicians, Stader observes. "It is part of what we encourage our hospitals to do because it is such a good way to get people, who might be a little more resistant up front, to actually take steps to change their practice," he says. "When you are being graded against your peers and [the data] show that you are falling short — that's really powerful motivation."

Project developers encountered numerous other challenges over the course of the pilot, too. For instance, one initial obstacle that every hospital faced was getting access to drugs that have not been used traditionally, such as small doses of ketamine and IV lidocaine. Such an approval typically goes through a hospital's dangerous drugs committee, Stader explains. In many cases, it took multiple communications and reassurances that the ALTO approaches were safe.

Similarly, there were challenges at some hospitals regarding the use of nerve blocks — procedures that basically involve infusing lidocaine or another nerve-blocking agent around the nerve in an affected area of the body to block the transmission of pain to the brain. "Nerve blocks are procedures that some departments of anesthesia say that only an anesthesiologist can do, and some of these [requirements] are in hospital bylaws," Stader notes. "Sometimes, you have to change those [bylaws]." It also took time to fine tune a process for collecting and reporting data from hospitals that use a variety of different IT systems. "We did have challenges with data collection, but the great news about that is those kinks have been worked out, so when we bring new hospitals on board, we will be able to spend less time on that issue," MacKay stresses. "That's why we do a pilot, and we do it in a small population. Because we are looking to find what works, what doesn't work, and what we need to do differently to make things better."

Build on Early Success

Now that the pilot is complete, CHA is preparing to launch a much larger effort aimed at getting all the EDs in Colorado to adopt ALTO techniques. "We are currently shoring up and improving the tools we have on hand now because that is what performance improvement is all about," Mackay observes. "We are looking to start in the southern part of the state, and we will be rolling this out on a larger scale."

The 10 pilot hospitals will be able to help the other hospitals come on board, shortening the implementation time significantly, MacKay says. Further, she notes that CHA will continue to collect data from the hospitals to ensure that the reductions in opioid prescribing are sustained.

"The participants have told us that this has changed their clinical practices permanently," she says. "It does take time, but in six months it has changed their practices."

While CHA is rolling out the ALTO approach statewide, the organization soon will begin working on another focus of the treatment guidelines: the treatment of addiction. Specifically, CHA is readying a pilot that will use the screening, brief intervention, and referral to treatment (SBIRT) model to initiate medication-assisted treatment (MAT) in the ED, and then provide patients with a warm handoff either to a primary care provider (PCP) or a trained MAT provider in the community who can continue to provide MAT.

"Expanding access to treatment is what we are doing here," MacKay notes. "We are chipping away [at the opioid epidemic]. We started in one area with the ALTO pilot, and now we are expanding to MAT. It is exciting work, and we are looking at saving lives."

Acting as an opioid consultant for CHA, Stader will take a leading role in the MAT pilot, training the clinicians and explaining how MAT will be integrated into the ED. Stader anticipates there will be some pushback, but says he is armed with data and examples.

"There is really compelling evidence that we help people [with addictions] when we actually initiate [treatment] and are then able to transition them to a MAT provider," he explains. "I try to bring people who are in recovery from their addictions so clinicians can actually see people who are on Suboxone and are functioning who were in the throes of addiction."

While there has been some resistance from the emergency medicine community to getting involved with the treatment of addiction, Stader maintains that initiating MAT in the ED is something that the community needs.

"We deal with a lot more dangerous situations than putting someone on Suboxone, which is a

pretty easy process," he observes. "We have to have an eagerness to look at solutions, and this is one of the solutions that we can provide."

Editor's Note: To access more information about the Colorado Opioid Safety Pilot, a pre-launch checklist for ED-based ALTO initiatives, and the Colorado ACEP 2017 Opioid Prescribing and Treatment Guidelines, visit the Colorado Hospital Association website at: https://bit.ly/2BtOinS. ■

SOURCES

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Injectable Opioid Shortages Causing Adverse Consequences for Some Physicians, Patients

It's ironic that even while the country is confronting a dangerous opioid epidemic, providers report that they are having trouble getting their hands on the powerful pain killers — a situation that is dangerous as well. The shortage, which primarily involves injectable opioid painkillers, is reportedly caused by drug manufacturing difficulties as well as the government's efforts to address addiction by clamping down on drug production. However, the problem is resulting in adverse consequences for clinicians and patients.

For instance, in some cases, physicians and nurses are scrambling for alternative pain relievers, some of which require different doses or delivery mechanisms — a recipe for errors. Indeed, the Institute for Safe Medication Practices (ISMP) reports that there already have been some cases in which patients received potentially harmful doses as a result of this practice.

For instance, in the ISMP's survey of hospital pharmacists conducted in 2017, a provider reported that in one case a patient received five times the appropriate amount of morphine because the vial containing a smaller dose was not in stock. Some physicians report they are forced to preserve the supply of injectable opioids for the highest priority cases, leaving some patients suffering with less potent alternatives such as acetaminophen or muscle relaxants. Meanwhile, the American Society of Anesthesiologists reports that the shortage has resulted in the postponement of some elective surgeries.

In a letter to the U.S. Drug Enforcement Administration (DEA) in late February, the American Hospital Association, the American Society of Clinical Oncology, the American Society of Health-System Pharmacists, the ISMP, and other groups called the drug shortages potentially life-threatening. The groups urged the DEA to temporarily adjust the aggregate production quotas for the injectable opioids in short supply to enable alternative manufacturers to supply these drugs until the shortage eases. ■

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CME/CE QUESTIONS

1. **In a Vital Signs report, the CDC indicates that the number of patients with opioid overdoses treated in the ED increased by 30% between July 2016 and September 2017. With a 70% increase, which region was hit particularly hard?**

   a. Southeast
   b. California and Oregon
   c. Northeast
   d. Midwestern states

2. **In the CDC Vital Signs report, the biggest increases in opioid overdose cases in the ED were seen:**

   a. in small cities and towns.
   b. in large metropolitan areas.
   c. among disadvantaged populations.
   d. among young men 25-34 years of age.

3. **Don Stader, MD, FACEP, the associate medical director in the ED at Swedish Medical Center in Englewood, CO, and the physician educator for a Colorado Hospital Association-led pilot aimed at reducing opioid prescribing in the state, notes that one initial obstacle that every hospital faced was:**

   a. securing access to drugs that have not been used traditionally.
   b. provider pushback.
   c. financial constraints.
   d. workflow challenges.