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Treatment, Trauma-Informed Care Elevate Behavioral Health Management

Boarding continues to be a major issue for EDs across the country faced with increasing numbers of patients who present with behavioral health (BH)-related emergencies. Many of these patients sit for hours or days in the ED awaiting transfer to another facility, often without receiving treatment for their concerns. Meanwhile, other patients wait longer for care because of limited bed availability.

This problem is so widespread that the Institute for Healthcare Improvement (IHI) has spent the last 18 months collecting expert input on the issue and working with eight hospital systems to pilot improvements in the way BH patients are managed in the emergency setting. *(See sidebar box, page 14.)* The creators of the initiative, called ED & UP, are readying the results of this effort so that other EDs can integrate the lessons learned into their own settings.

In advance of this report, several participants united to share some of their early findings in an IHI presentation entitled "The Benefits of Behavioral Health in the ED" on Nov. 14, 2019. While the experts highlighted a few steps that EDs can take to improve the way they manage their BH patients, they cited a change in culture as perhaps the most pivotal to achieving real progress.

Consider the Numbers

While most EDs seek to address their boarding problems by finding new and better ways to transfer these patients out of the emergency setting more quickly, it is a flawed approach when one considers the number of patients involved, according to **Scott Zeller**, MD, vice president of acute psychiatry for Vituity Healthcare, a multispecialty medical partnership based in Emeryville, CA, said during the IHI session.

"What we are seeing is an enormous increase in people with [BH] emergencies coming to the ED. It has gone from where it may have been something like one in every 20 patients a few years back to where, in some more recent studies, ... one out of every six patients is coming into the ED for a BH emergency as their

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chief complaint." For instance, the number of people presenting to the ED for suicidal ideation or following a suicide attempt is up by more than 414% over the last decade, Zeller noted. This is a problem, considering the traditional thinking has been that it is not the ED's role to work with these patients. Such patients might be provided with sedation, but then the approach would be to try to find them an inpatient bed, Zeller explained.

"When there were plenty of inpatient beds available, maybe that approach made sense, but currently it doesn't make any sense at all," Zeller stressed. "What is happening is psychiatric patients are staying in EDs often without any treatment at all, just waiting for transfer to a psychiatric facility or a psychiatric hospital. This is a long length of stay. Depending on where you are around the country, it could be anywhere on average from eight hours to 30 hours. Sometimes, we hear of patients waiting weeks in EDs for a transfer."

While these patients sit in the ED, they are not receiving the help they require. This situation also is not good for patients sitting in the waiting room with other diagnoses who cannot enter the ED quickly because the beds are full of psychiatric patients awaiting transfer, Zeller observed. "It is not a good thing for hospitals, either," he added. "They are, on average, losing about $2,500 for every patient they are boarding for psychiatric reasons."

Take Ownership

Part of the problem is that there has been a prevailing notion that the ED is the not the right place for patients with BH emergencies. However, Zeller noted that even when there are outpatient programs or other crisis services in the community, these resources generally do not have the capacity to deal with high-acuity BH patients (i.e., those who are boarded most often). This includes patients who are acutely suicidal, acutely agitated, or patients with extreme symptoms of psychosis.

In addition, it includes patients with a history of violent behavior, comorbid substance use issues, or patients who are acutely intoxicated or are in withdrawal, Zeller explained.

"All of these things can end up meaning that these patients really need the ED, or at least a hospital level of care," Zeller shared. "Federal law defines psychiatric emergencies where someone is dangerous to themselves or others as equivalent to a medical emergency. An ED can be, and in fact is, an appropriate place for people with high-acuity danger

ED & UP PARTICIPANTS

- Abbot Northwestern Hospital
- Cohen Children's Medical Center
- Hoag Memorial Hospital Presbyterian
- Kaiser Permanente Sacramento
- Maine Medical Center
- Memorial Hermann Northeast
- South Seminole Hospital
- Providence Regional Medical Center Everett

symptoms to go." Another flawed notion, according to Zeller, is the idea that mental illness cannot be treated in the emergency setting. Rather than trying to find the perfect program for these patients, Zeller argued it is time to take ownership of these patients, and find the best way to treat them.

"If we do that, we are going to actually get a lot of better outcomes," he stressed. "One thing we know from our research is that the great majority of psychiatric emergencies can be resolved in less than 24 hours if you start treatment right away."

Streamline Care

For starters, Zeller noted there are some simple steps EDs can take to improve the way they manage psychiatric emergencies. First, he noted it important to approach BH patients in a trauma-informed, patient-centric way that will not stigmatize or risk making symptoms worse. For instance, he observed that at some EDs, the first place patients with psychiatric symptoms go is for a blood draw.

"Maybe there is an assumption that everybody needs to get a blood draw, but think about it: If we are going to avoid the need for hospitalization in the majority of patients, we shouldn't be traumatizing patients by going after them with a needle before we even know if they are going to need it," Zeller said. "A lot of people are afraid of needles, and that is one of the things ... that can make people's symptoms worse."

Secondly, there is no reason to conduct a medical clearance exam, and then conduct the psychiatric part, Zeller said. Instead, he advised EDs to perform both the psychiatric and medical parts simultaneously as part of the same medical evaluation. Further, instead of just holding someone or giving him or her sedation, find ways to start appropriate treatment.

"What is going to happen is a lot of these people are going to get better, and that is going to change your disposition decision," Zeller said. "When you take a look at someone when they first come in, they may appear very acute. But if you start treatment, a few hours later they may appear much better. Instead of needing to be hospitalized on an inpatient unit, they may be able to go to a community program. That is a win/win for everybody."

Zeller likened this kind of management to the way one might treat a patient who presents with difficulty breathing due to asthma complications. He noted one might first think the patient needs to be hospitalized. However, if one gives the patient a nebulizer, then he or she might be breathing clearly a couple hours later and be fine to go home. "The same thing can happen with an emergency psychiatric patient," Zeller added.

Take a Patient-Centric View

To find different ways of improving how BH patients are managed in the ED, IHI has been working with eight participating sites in the ED & UP initiative to test changes recommended by experts.

"The objective of this learning community was to really develop a theory and test that theory," observed **Marie Schall**, MA, senior director of IHI who also is presiding over ED & UP, during the Nov. 14 IHI session.

Schall noted that the work has focused on what she calls the four Ps, or the aspects of care that the experts suggest are key to improving the way BH patients are managed in the ED. *(See the sidebar box below for more*

EXECUTIVE SUMMARY

ED & UP, an initiative of the Institute for Healthcare Improvement, has been testing changes intended to improve the care and management of patients who present to the ED with behavioral health (BH) concerns. Among the early findings is recognition that providing trauma-informed care to these patients is critical to any improvement effort. Further, experts note EDs should find ways to provide early treatment to these patients rather than just focusing on ways to transfer them elsewhere.

- Over the last decade, there has been an enormous increase in the number of patients presenting to the ED with BH concerns. Studies suggest that, on average, roughly one in every six patients presents with a BH emergency as their chief complaint.
- The traditional thinking has been that it is not the ED's role to work with these patients. Thus, the focus has been on finding an inpatient bed or treatment elsewhere, which leads to long lengths of stay and boarding problems.
- Experts note the great majority of psychiatric emergencies can be resolved in less than 24 hours if one starts treatment right away.
- After implementing a trauma-informed care approach at its ED in Newport Beach, CA, Hoag Memorial Hospital Presbyterian saw several improvements, including a 50% decrease in violent incidents.

information.) The participating sites have piloted different aspects of care outlined in the four Ps, Schall noted. For instance, some sites have focused on using assessment tools to ascertain patient needs more quickly, while others have studied de-escalation techniques. Still other teams have worked to strengthen relationships with community resources.

"Our teams have been working on things like streamlining the referral process, making it possible for patients to have appointments in hand when they leave the ED so they can follow up with a community provider," Schall reported. "[This is] to tighten the care system so that people don't fall through the cracks and then have to return to the ED unnecessarily."

Schall emphasized that what the participating sites discovered is that instilling a trauma-informed culture has outsized influence in making strides in this area. To that end, the learning community tried to examine what the care process looks like from the patient's perspective, and think about how EDs can best respond to such a person's needs through changes in the care process. Considering these patients typically ask for comfort and safety, the learning community studied how EDs can deliver these basic needs. This starts with the initial patient interaction and continues all the way through to ensuring individuals receive the kind of support they need to manage their conditions or distress over the long term.

"This has really become the centerpiece to any of the changes the teams have made," Schall added.

Examine the Numbers

One of the participating facilities in the learning community, Hoag Memorial Hospital Presbyterian (with sites in both Irvine and Newport Beach, CA), has worked to implement several improvements to the way it manages BH patients in the ED.

However, the most transformational change has involved instituting a trauma-informed culture among the ED staff, explained **Scott Surico**, BSN, RN, MICN, education coordinator for emergency services and neurobehavioral health, during the Nov. 14 IHI session.

On average, the EDs at the two Hoag hospitals see about 6,800 patients a month, roughly 6% of whom present with BH emergencies. "When you consider the fact that these patients have to be taken to a room and put on a hold — first a 24-hour medical hold, and then, if need be ... a 72-hour detention — then 23% of our ED beds are taken up by BH patients 24/7, 365 days of the year," Surico shared.

The way such patients used to be managed was the ED staff would obtain labs, but no treatment would be provided, Surico explained.

Then, the hospital brought in psychiatrists to work in the ED Monday through Friday, which was helpful in terms of facilitating treatment for these patients and releasing the holds where indicated. However, the psychiatrists often were called to work on the inpatient side, too, resulting in more demand for their services than hours in the day.

Start With Training

It soon became clear that a new approach was needed.

"We found we had an increase in security calls, or code grays," Surico reported. "Our frontline staff in every single survey said they don't feel supported, they don't feel safe." Further, workplace injuries were on the rise, too.

"We weren't treating the whole patient, and we knew that," Surico continued. "We did not have the appropriate resources to transition these patients from the inpatient to an outpatient setting unless we could get them into an inpatient psychiatric facility. [Also], 33% of our inpatients had secondary mental health diagnoses that we weren't treating."

It was at this point Hoag became a member of the IHI learning community, and decided to pilot a trauma-informed care approach in the largest of its two EDs (Newport Beach). Surico took charge of the project, beginning with training into what trauma-informed care is all about. This concept was developed

KEYS TO IMPROVING TREATMENT

During the Nov. 14, 2019, IHI session, **Marie Schall**, MA, senior director of IHI noted that the ED & UP work has focused on what she calls the four Ps, or the aspects of care that the experts suggest are key to improving the way BH patients are managed in the ED:

- **Process**: standardizing ED processes related to the BH patient group;
- **Provider culture**: creating a trauma-informed culture among ED staff;
- **Patients**: engaging and activating patients and families;
- **Partnerships**: finding ways to strengthen the ties between the ED and community partners. ■

by the Substance Abuse and Mental Health Services Administration (SAMHSA).

This group contends 90% of BH patients have suffered from some kind of trauma or abuse early in their lives, which has changed their brain functioning and causes them to suffer from a BH diagnosis, Surico related.

"There is a lot of emphasis on the fact that [having such a problem] is a diagnosis. It is not a behavior or bad parenting or bad decisions in college, but an actual diagnosis just like a heart attack or diabetes," he said.

Consequently, when these patients come to the ED, rather than asking what is wrong with them, the more appropriate question is to ask about what they have experienced. Surico said the focus should be on trying to learn as much about the patient as possible.

"Find out something personal about them that [you] can use to connect with them when they amp up or start to get aggressive," he advised.

Increase Awareness

A trauma-informed approach also involves raising awareness about what happens in the ED that can trigger or retraumatize these patients, Surico observed. For instance, he realized that since security officers wear uniforms and badges that are similar to police officers, their appearance can trigger patients who have had run-ins with the police.

"Often, I have to move [the security guards] out of sight just to keep a patient from becoming agitated," Surico reported.

Other potential triggers include alarms, overhead pages, or noises that may travel from room to room.

"All of these things have been found to ... cause our BH patients to become aggressive, assertive, or anxious," Surico noted.

When one looks for the cause of a patient's behavior, it can be relatively easy to address the issue, Surico offered. For instance, he noted that if a bipolar patient is yelling and screaming because his mother just came in and indicated he cannot come home, the patient may be worried he will be thrown onto the street.

"If we can address that issue, and talk to the patient about what we are going to do to help him so that we are not just going to throw him out onto the street, that patient will [likely] de-escalate very quickly and accept our help," he shared.

Trauma-informed care emphasizes what Surico referred to as empathetic communication.

"It is acknowledging that it is stressful, scary, and hard to be in the ED on a hold," he explained. "It is letting the patient know that if you were in that situation, you would probably be scared, too. Then, it is letting them know why they are there, what [you] can and cannot do, and then sitting down and trying to give them something they can hold on to."

In some cases, it might be enabling patients to watch TV, giving them a nicotine patch, or even just providing them with a sandwich, Surico noted.

"Once you empathize with [patients] ... show them that you are with them and that you know who they are ... it changes the whole dynamic of that encounter in the ED," he said.

Measure Outcomes

The positive results from implementing trauma-informed care have been borne out in the ED that piloted the approach. For instance, prior to implementing this new approach, the ED was seeing 12 to 18 incidents of violence involving patients every month. Then, in September and October 2018, every nurse, EMT, secretary, and clinical coordinator underwent training on how to provide trauma-informed care.

The results were immediate. Surico reported that in both November and December 2018, there were just five violent incidents reported each month. In January and February 2019, the monthly tally of violent incidents was just two.

"Since then, we have had an average of five to six workplace violence incidents every month. We have decreased our workplace violence incidents by more than 50%," Surico shared. "That was [SAMSHA's] theory, that when you change the way you view these patients and how you interact [with them] ... you are going to decrease workplace violence."

However, the decrease in workplace violence was not the only positive result the ED experienced. Calls to security and the use of behavioral restraints also declined by 30% to 40%. When restraints were used, they were only on the patient an average of 15 minutes, Surico noted.

"Before [implementing this approach], we would leave the restraints on for 30 minutes before we would even talk to the patients," Surico said.

Furthermore, staff surveys validated these results, with nurses reporting they felt safer and better able to help this population of patients.

"Our nurses are now engaged, and they are in there with the patients," Surico shared. "They don't just put them in a room; they are in there talking them down and letting them know we are here for them."

The pilot was so successful that Hoag has implemented the trauma-informed approach in its Irvine ED. Meanwhile, Newport Beach is in the process of providing the same trauma-informed training to all inpatient nurses and staff working in ancillary services throughout the hospital, Surico reported.

"We do have a problem upstairs. We are being attacked by family members, visitors, and patients. We have never known how to talk them down or how to communicate and reach them," Surico lamented. "We have changed our verbiage. We no longer use 'psych patient.' We use 'behavioral health' or 'neurobehavioral health' patient. We don't say that we deal with them. It is an encounter."

Even just those simple updates in terminology have changed the perspective of staff. Thus, outcomes are evolving positively, Surico said.

"It really has been quite a successful program, and we are excited to share it with our sister hospitals," Surico added. "I hope that others in the nation take this program and run with it because it ... can give your nurses ... the opportunity to help a patient population that, historically, we have not been able to help without specialized training."

Secure Leadership Support

Working with the improvement teams from Hoag and the other ED & UP participants, IHI is in the process of synthesizing all the lessons and outcomes gleaned from their 18 months of work, Schall reported. She noted that IHI will release more details about outcomes and recommended changes soon.

Arpan Waghray, MD, a geriatric psychiatrist and chief medical officer of Well Being Trust, the national foundation that is funding the IHI learning community's efforts in this area, commented that it is well-recognized that EDs have many competing priorities and that community resources for BH care are often scarce. Still, he noted during the Nov. 14 session that hospitals and EDs can bring about positive change.

"It is extremely important for us to change our culture and to stop talking about [BH] patients as those patients out there, Waghray stressed. "[Instead], try to think of them as our patients." ■

Emergency Physicians, Nurses Unite Against Workplace Violence

The American College of Emergency Physicians (ACEP) and the Emergency Nurses Association (ENA) have teamed up to launch "No Silence on ED Violence," a new campaign aimed at addressing the rising number of workplace violence incidents that take place in the ED.

The move comes amid surveys conducted by the two groups that reveal nearly half of emergency physicians and about 70% of emergency nurses report experiencing a physical assault at work.[1]

The campaign is designed to raise awareness about the on-the-job dangers ED personnel face daily, and to prompt action among key stakeholders and policymakers toward ensuring emergency clinicians and staff can operate in a safe environment.

In a joint statement, ENA President **Patricia Kunz Howard**, PhD, RN, CEN, CPEN, TCRN, NE-BC, FAEN, FAAN, stated that no nurse, physician, or other healthcare professional working in the ED should feel unsafe.

"We're there to care for people, not to have to question our own safety," she said. "Workplace violence is really important to us in the emergency

department because it really impacts the care we deliver."[2]

William Jaquis, MD, FACEP, president of ACEP, noted most emergency nurses and physicians have been affected directly by violence.

"It goes everywhere from verbal violence, which happens frequently, to physical violence," he said. "Ultimately, we hope that in sharing our stories we will gain insight and share resources on how to prevent any future harm to our medical teams and our patients."[2]

Indeed, through the campaign website (http://bit.ly/39uaTDc), emergency personnel are invited to share their experiences with workplace violence to build public awareness about the problem.

The site also offers links to resources for training and education, important research on the topic, and expert advice on how to address or prevent workplace violence in the emergency setting.

Further, the site includes information about proposed legislation as well as current state and federal laws focused on reducing violence in healthcare. Campaign developers are making this information available so emergency medicine leaders can better advocate for positive changes in their own states and communities. ■

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Accountability Program Helps Identify Opiate Prescribing Outliers, Addresses Education and Quality Needs

It stands to reason that fully understanding when and why providers under- or overprescribe opiate medications might assist in standardizing prescribing practices and also help bring the opioid epidemic to heel. However, most healthcare systems lack the tools to easily collect this information meaningfully.

Investigators at the University of California, Irvine (UCI) Medical Center have decided to address this issue head-on. They created a sophisticated electronic prescription accountability program that provides a full, fair picture of provider prescribing compared to traditional tracking methods. The approach facilitates peer-to-peer comparisons of prescribing practices and gives department leaders a helpful tool they can use to drive quality improvement.

The impetus for the program came from the recognition that many patients with addiction problems were coming through the ED. Health system leaders did not firmly grasp how much the institution might be contributing to the problem, explains **Shalini Shah**, MD, chief of the division of pain medicine and director of pain services at UCI Medical Center.

"How do we as an organization at UCI take accountability for the quality and outcomes of pain delivery to our patients?" Shah asks, recounting the kind of discussion in which clinical leaders were engaging before the program was developed. "We felt as an organization that we ought to take accountability in some ways for the opiates that are leaving our institution and going out into our community."

An institutional pain committee was formed to discuss a solution. The panel was comprised of nurses, pharmacists, physicians, and the institution's chief medical and nursing officers. After considerable debate, the group decided on a way forward. "The best way to change physician behavior is to actually show [providers] how they compare to their peers," Shah explains. "Let's create a dashboard that allows each physician to be compared to [his or her] peers."

Fortunately, one committee member was a statistical analyst with a clinical background in pharmacy who noted that she could collect the appropriate data from the health system's electronic medical record easily. After data collection, control for appropriate variables. That is how the dashboard and the electronic accountability program began to take shape, beginning in January 2019, Shah reports.

Control for Variables

Initially, the dashboard focused on reporting data for three specific groups within the healthcare system: emergency physicians, hospitalists, and primary care physicians. "We send these data to departmental

chairs, and the data are anonymized," explains Shah, noting that no specific physician names are attached.

However, say the department chair of emergency medicine sees there are one or two outliers regarding opioid use among all emergency physicians. If so, that department chair can request identifying information on these outliers. That way, these physicians can receive education or other resources intended to improve their opioid prescribing. Any intervention in this regard is up to the discretion of the specific department chair, Shah observes.

"We made it very clear to the institution and the physicians that this [accountability tool] is not meant to be punitive; it is not meant to poke holes at ... how they are practicing," Shah stresses.

Rather, it is intended to inform the leaders of the three physician groups about how their providers are using opioids, on average, and to highlight opportunities for improvement with respect to any outlying physicians.

Even the institutional pain committee is blinded from any identifying information that is collected and reported, Shah notes. "We didn't want people to gossip, leak information, or change their perception of each individual physician just based on opiate prescribing," she explains.

"The only person who has access to the de-identified information is our quality analyst, who does not do clinical care," Shah says.

A key differentiating aspect of this approach is the fact that it controls for multiple variables. This creates a more accurate picture of a clinician's prescribing compared to automatic dispensing machines, electronic prescribing databases, or even purchasing information, Shah observes.

"In the ED, sometimes you may be overburdened and see 30 patients in a day, but it doesn't mean that your prescribing is higher [per patient] than a provider who saw five patients. We control for all of those variables," she says. "You don't really know as an institution where you are relative to your peers. This is why this type of accountability is a little bit different than what is out there right now."

Bring Providers Aboard

Since the accountability program was implemented, it has been used regularly as a practice improvement tool for the three physician groups.

"We present the data to our institutional quality oversight committee, which is led by our chief medical officer, [who then] reviews the completely blinded information," Shah explains. "Then, we present to the different departmental chairs."

However, Shah observes it is too early to conclude what results the approach has delivered.

"We never captured these data previously. We don't have a benchmark for comparison purposes," she says.

Further, she notes other variables could be playing a role in prescribing practices, too. For instance, Shah notes new laws pertaining to opiate prescribing in the state could be curbing inappropriate or excessive opiate prescribing.

"We can't say conclusively that [this program] has caused a decrease, but if you look at our institutional data, we do find that providers are satisfied with this type of accountability, and the institution is satisfied as well," she says.

Also, Shah notes the program affords physicians a new opportunity to receive education in this area. Indeed, Shah views provider acceptance of the program as a big win in and of itself. She credits the way it was rolled out and explained to the clinicians. For example, the institutional pain committee made the case that regarding their opiate prescribing, physicians already are under the observation of payers, pharmacies, the state medical board, and the Drug Enforcement Administration. Thus, the accountability program would offer a layer of institutional protection.

"Why don't we as an institution protect ourselves as peers ... [take steps] to practice homogenously as a group and minimize the outliers?" Shah asks. "That is how we sold it to the physicians."

Because of this messaging, most physicians were on board once they were reassured the program would not assess their prescribing simply based on the number of prescriptions written. They were assured the analyses would control for the number of shifts worked, patients seen, and other variables. "We try to make it as across-the-board fair as possible. In that respect, the physicians have been very happy," Shah reports.

While the accountability program is proprietary to UCI, there is no reason why other health systems cannot move in a similar direction to develop their own approaches to opiate prescribing. Meanwhile, Shah notes there are plans for continued fine-tuning of the approach and further expansion of the program's reach to include surgeons.

"How much are surgeons prescribing when patients come in for surgery? What about mild surgery vs. moderate surgery or severe surgery? Is there a difference there in prescribing? How many outliers are there?" Shah asks. "That is the next [place] where we want to take this." ■

Can Telemedicine Deliver High-Quality Geriatric Care to Rural EDs?

Currently, there are more than 100 U.S. EDs that have achieved some level of credit through the American College of Emergency Physician's (ACEP) Geriatric Emergency Department Accreditation (GEDA) program. That means these EDs have taken specific steps to better meet the needs of older patients who present to the ED according to Geriatric Emergency Department Guidelines, a set of consensus-driven guidelines established in 2013.

However, recognizing that smaller, rural hospitals often do not have the training or resources to meet GEDA standards, researchers are determining if telemedicine technology can be leveraged to make this accreditation available to these facilities.

Further, is it possible for many older patients to receive needed care in their own communities rather than face transfer to larger, tertiary care hospitals that may be far away?

Lebanon, NH-based Dartmouth-Hitchcock Health and West Health, a group of nonprofits that has long been focused on programs and interventions to help seniors receive high-quality, cost-effective healthcare in their own communities, have teamed up to find out.

Scott Rodi, MD, interim section chief and regional director of emergency medicine at Dartmouth-Hitchcock Medical Center (DHMC), says the first step is for the DHMC ED to become a level 1 geriatric ED under the GEDA program, the highest of three levels of accreditation offered. However, he also notes that the Dartmouth-Hitchcock Health System already has a mature telemedicine network in place that will be used to support the delivery of high-quality geriatric care at the participating rural hospitals. "In each of years 2 and 3 of the project, we plan to bring on two rural [hospitals] so that by the end of the project we will have at least four rural hospitals that are part of our system," observes Rodi, who is serving as the principal investigator and local champion for the effort. "The point of the project is to actually study [this approach]. If it turns out to be a useful and feasible model, we would hope to expand it to more sites."

Kevin Biese, MD, FACEP, MAT, associate professor in the division of geriatric medicine and co-director of the division of geriatric emergency medicine at the University of North Carolina, is heavily involved in helping set up the program at DHMC. He also will work with the participating rural hospitals once they are selected.

Biese has taken a leading role in establishing the GEDA program, and works part-time for West Health.

"I am sharing with [DHMC] specifically the best practices from the best geriatric EDs in the country. There are now 107 geriatric EDs in more than 25 states. I have been able to visit all the level 1 sites," he reports. "I am sharing those best practices and helping DHMC learn from the experiences of others as to how you take excellent emergency care of older adults. I am innovating with [DHMC] on how we can make those same services available via telehealth to their partnering rural and critical access hospitals."

Biese notes that providing the kind of medical care and social supports that older adults often need when they go to the ED requires a lot of expertise. This not only applies to

EXECUTIVE SUMMARY

Researchers are testing whether telemedicine can be used to help EDs at small, rural hospitals deliver the kind of high-quality geriatric care spelled out in the American College of Emergency Physician's new Geriatric Emergency Department Accreditation (GEDA) program. Under the three-year research project, Dartmouth-Hitchcock Medical Center (DHMC) in Lebanon, NH, will be providing geriatric support and expertise to four rural hospitals through a mature telemedicine program already in place.

- One aim of the program is to enable senior patients in rural areas to receive high-quality geriatric care in their local EDs rather than face transfer to larger hospitals that may be far away.
- Under the approach, geriatricians, case managers, social workers, physical therapists, and other specialists will be available via telemedicine hookup to the rural hospitals participating in the project.
- Program developers will help the four hospitals work toward achieving level 2 accreditation in the GEDA program.
- Investigators also will be monitoring a blueprint that will allow other parts of the country to deploy geriatric expertise and support services to rural EDs in a sustainable way.

doctors and nurses, but also social workers, case managers, pharmacists, and physical therapists.

"Frequently, complicated patients with complicated medical problems are transferred to big medical centers like DHMC, and then they are far from home," he says.

Spending time away from family can be hard on patients and loved ones. This project leverages the telehealth network already in place in the Dartmouth-Hitchcock Health System to essentially "beam out" that multidisciplinary care team to the EDs at these smaller, rural hospitals. Thus, many of these patients may access the care they need closer to home, Biese shares.

In the first year of the project, most of the ED staff at DHMC will receive some geriatric training. However, Rodi explains there also will be new resources brought on specifically for care management and social work that can be dedicated to the geriatric population.

He also anticipates adding geriatricians who can provide physician-to-physician support or advice.

"When we get to the point of adding hospitals, if they are looking for help connecting to their community or help screening a patient, or they want the advice of a geriatrician, those mostly new resources will be in place to provide that support, typically through telemedicine," he says.

Rodi adds there will be both a geriatric medical director and an emergency medicine director for the project. These leaders will make some on-site visits to participating hospitals.

"We will be on site to help each site identify which screening tools they want to implement ... and which policies they want to put in place," Rodi observes. "A geriatrician will be on call 24/7, but the geriatric medical director and emergency medicine medical director will also be available to help in a scheduled way."

One goal of the three-year project is to enable the four participating rural hospitals to achieve level 2 GEDA certification.

"Our thinking is that without a project like this, it would be very difficult for a small, critical access hospital to achieve level 2 status," Rodi explains.

Beyond helping these facilities achieve accreditation, investigators will be tracking a range of metrics to gauge the overall impact of the program. These metrics may include length of stay, hospital charges, rates of various screenings, urinary catheter use, perception of avoided transfers, and concordance with advance directives.

Other metrics could include hospital-acquired delirium; patient and family satisfaction; rates of polypharmacy; use of physical or chemical restraints; rates of falls; and consultations with physical therapists, geriatricians, and palliative care.

"We are developing a score card ... but the overarching goal of that will be to decide whether clinically this program has an impact that is valuable to the community," Rodi shares.

He adds that analysts also will be assessing whether there is any financial impact for participating hospitals, and whether offering these services is cost-effective for DHMC.

There will be no fees assessed during the three-year research phase, but there will be some requirements, Rodi notes.

"The principal things we will be asking for is that they have a local champion who is interested [in this area], will work with us to develop their screening tools, and help us gather data locally," he explains. "Most of these sites will not have an electronic medical record that we can access. We will need help from that person on site who will be the champion."

Ultimately, researchers hope to determine whether this program can deliver a return on investment (ROI) for small, rural hospitals.

"It is conceivable that if there is an ROI, we might [eventually] discuss fees for sites that have access to the resources that are being paid for centrally," Rodi explains.

Biese envisions a program that will endure well beyond the three-year timetable of this research project.

"We are not just doing a grant-funded program that should go away when the grant goes away," he stresses. "We know if critical access hospitals are able to keep patients and treat them appropriately there, then that will make those hospitals more sustainable. Keeping rural hospitals in America open is critically important."

Further, Biese observes if DHMC can dedicate its high-intensity beds to patients who need services that can only be provided in tertiary medical center like theirs, that is more financially sustainable for the health system.

"As we are tracking the clinical impact of this, we will also be keeping an eye on a blueprint that will allow other parts of the country to deploy these types of services in a sustainable way," Biese notes. "The closer to home you can get care, the better."

(Editor's Note: For more information about the GEDA certification program and process, please visit: http://bit.ly/2JWhqvG. For more specific information about the Geriatric Emergency Department Guidelines that were created in 2013, please visit: http://bit.ly/2PPWold.) ■

Vaping-Related Lung Injury Cases in EDs Decline, Fresh Concerns Emerge

While cases of e-cigarette (or vaping) product use-associated lung injury (EVALI) continue to be a concern, the number of patients presenting to the ED with such injuries has fallen dramatically since such cases reached a peak in September, according to the CDC.

Speaking to reporters on Dec. 20, **Anne Schuchat**, MD, the CDC's principal deputy director, noted that as of Dec. 17, more than 2,500 patients with EVALI had been hospitalized, according to reports from all 50 states. At least 54 patients in 27 states have died. Additionally, Schuchat said investigators now have more definitive data about both the trajectory of the outbreak and its potential causes.

"It is clear that the outbreak represented a new phenomenon, and not recognition of a common syndrome that had evaded our detection," explained Schuchat, pointing to recent data from an analysis of the CDC's National Syndromic Surveillance Program.[1] "A sharp rise in ED visits began in June 2019, and occurrences peaked in September 2019, consistent with our active case reporting from public health departments around the country."

Schuchat reported public health authorities are confident that vitamin E acetate is strongly linked to the EVALI outbreak. This stems from new findings from CDC scientists who found vitamin E acetate in the lung fluid samples taken from 48 of 51 patients with EVALI.[2]

"The findings came from 16 different states, suggesting this was not a single local supplier of tainted products," she observed. "These expanded patient clinical specimen results are consistent with previous work, including identification by FDA and others of vitamin E acetate in THC-containing products collected from patients with EVALI, as well as Minnesota's recent report that vitamin E acetate was in seized THC products from 2019, but not in any samples from 2018."

From this evidence, the CDC concludes the outbreak of EVALI can be attributed to exposure to THC-containing vaping products that also contained vitamin E acetate. However, Schuchat cautioned this does not necessarily mean there are no other substances in vaping products capable of causing lung injury. "We know that a persistent, small proportion of EVALI cases do not report use of THC-containing vaping products," she said.

While the outbreak has eased, Schuchat stressed the CDC continues to receive reports of newly diagnosed patients with EVALI. She noted a concerning phenomenon has emerged that is of particular importance to healthcare providers. "We report on dozens of patients who had a significant worsening of symptoms shortly after being discharged from the hospital for EVALI," Schuchat said. She was referring to a December report that described 31 patients who were readmitted to the hospital a median of four days after discharge, and seven patients with EVALI who died shortly after discharge.[3]

"While we don't yet have all the clinical reasons these patients worsened so suddenly, we did find factors that could be warning signs of which patients are at greatest risk for these problems," she said. "Patients with chronic diseases, particularly cardiac disease, chronic pulmonary disease, obstructive sleep apnea, and diabetes were significantly more likely to be readmitted. Older age is also a factor." Considering these findings, the CDC has issued updated guidance, recommending earlier follow-up of patients with EVALI who are discharged, optimally at 48 hours after discharge. This is to ensure any worsening symptoms are identified and addressed before it is too late. The CDC also has produced an EVALI discharge readiness checklist to which hospital clinicians can refer when caring for patients with EVALI.[4] "The medical community has been doing a terrific job with this, but we are committed at CDC to updating our guidance as soon as we have actionable information," Schuchat said. ■

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CME/CE QUESTIONS

1. **What is the most important step toward making progress in the care and management of patients who present to the ED with behavioral health (BH) emergencies?**

   a. Hiring more staff
   b. Creating a separate area in the ED for BH patients
   c. Changing provider culture
   d. Providing added training to nurses

2. **If one starts treatment immediately, most psychiatric emergencies can be resolved in:**

   a. less than 24 hours.
   b. less than 48 hours.
   c. less than one week.
   d. less than one month.

3. **In the prescription accountability program developed at UC Irvine Medical Center, the only person who has access to de-identified information is the:**

   a. chief executive officer.
   b. chief quality officer.
   c. institutional pain committee chairman.
   d. quality analyst.

4. **Dartmouth Hitchcock Medical Center and West Health are engaging in a three-year project to see if high-quality geriatric care can be delivered via telemedicine to EDs in rural areas. One goal of the project is to enable the four rural hospitals that will be participating in the project to:**

   a. recruit emergency staff with a higher level of geriatric expertise.
   b. achieve level 2 accreditation under ACEP's Geriatric Emergency Department Accreditation program.
   c. attract patients from a larger service area.
   d. create separate senior-focused units within their EDs.

CME/CE OBJECTIVES

After completing this activity, participants will be able to:

1. Apply new information about various approaches to ED management;
2. Discuss how developments in the regulatory arena apply to the ED setting;
3. Implement managerial procedures suggested by peers in the publication.