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EDs in the Midwest and South activate disaster plans as deadly tornadoes sweep through the region

Hospitals face challenges in prepping for an internal and external disaster simultaneously

In early March, a swath of deadly tornadoes plowed across the nation's Midwest and South, once again underscoring the importance of hospital disaster planning. The storms killed at least two

EXECUTIVE SUMMARY

Hospitals in the Midwest and South activated their disaster plans in early March to deal with a phalanx of powerful tornadoes that leveled several small towns and killed at least two dozen people. Some hospitals had to activate plans for both internal and external disasters as their own facilities were threatened. One small critical-access hospital in West Liberty, KY, sustained significant damage and had to evacuate its patients to another facility. All the hospitals credit their disaster plans and practice drills with helping them to manage the crisis as efficiently as possible.

- Morgan County ARH Hospital in West Liberty, KY, went for several days without an operational lab or radiology department, but staff kept the ED open for absolute emergencies.
- Margaret Mary Community Hospital (MMCH) in Batesville, IN, received six tornado victims, but it was prepared for many more. Administrators credit advanced warning of the storms with helping them to prepare effectively, as well as to coordinate their response with other hospitals in the area.
- As a level 1 trauma center, the University of Louisville Hospital in Louisville, KY, received all the most seriously injured patients in the region, even while the facility itself was under a tornado warning. Staff had to route families away from the glassed-in waiting room to the basement until the tornado warning had passed.
- At one point during the crisis, there were 90 patients in the hospital's ED even though the department is only equipped with 29 beds.
- Administrators at Huntsville Hospital in Huntsville, AL, encouraged colleagues to take advantage of smaller-scale emergencies to activate parts of their disaster plans, and to focus disaster preparation drills on their hospital's top hazard vulnerabilities.

dozen people while leveling a number of small towns. By March 5th, EDs from Nebraska to Georgia were already in review mode, discussing what aspects of their plans worked well and what needed to be revised. And the tornado season was just getting started.

Few areas were hit as hard as West Liberty, KY, where an early evening twister marched right down the city's main corridor, knocking down power lines, ripping off roofs, and significantly damaging Morgan County Appalachian Regional Healthcare (ARH) Hospital, the small, critical access facility that serves the community. "When the tornado warning came out, it was actually for a different area," explains **Gail Perry**, CEN, the hospital's ED nurse manager. "What happened was the tornado took a right turn that forecasters were not expecting."

Perry, who was not at the hospital when the tornado struck, had to walk a long distance to make it to work because the roads were not passable with all the damage. When she arrived, it was immediately clear that staff were going to have to make some changes in their disaster plans because the ED had sustained damage from the tornado. "The staff barely had time to remove patients and get them into a safe hallway, but there were no injuries that occurred [from the damage to the ED]," says Perry.

All of the hospital's disaster plans relied on the ED being the central area in such an emergency, says Perry, but staff quickly shifted gears and transferred all the patients to a clinic area instead. "It was the only area we had," she says. All the windows were blown out of the ambulance entrance area as well, so any arriving ambulances had to bring patients to the ambulatory entrance, on the other side of the hospital, she explains.

The ED only received 15-20 tornado victims, primarily because the heavy tornado damage in the West Liberty area limited access to the facility. "We did initial triage, stabilization, and treatment, but then we had to evacuate the hospital," says Perry.

One of the biggest challenges in carrying out the evacuation involved communications. The hospital had no direct communications with its regional referral center, St. Claire Regional Medical Center in Morehead, KY. Consequently, the staff at Morgan County ARH Hospital got creative, using a fax machine to copy charts and send them along with the patients. "Our ambulance personnel were in contact with St. Claire Regional, so we provided them with as much information as we could," says Perry, stating that the ED director at St. Claire later noted that one of the patients transferred to his facility actually arrived with a report written on a paper towel.

Morgan County ARH Hospital went for several days without an operational lab or radiology department, but staff kept the ED open for absolute emergencies, says Perry. "The only kind

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of communication we had within the hospital itself was walkie-talkies," she says. "You become dependent on all the technology, and it is really hard to imagine what happens if you have none of it. This doesn't just leave you without the technology, it leaves with you without vital information that you are used to having."

With the hindsight of having gone through this crisis, Perry advises colleagues to consider all of the possibilities when devising and practicing disaster plans. "You have to have a backup plan," she stresses, noting that her hospital staff found themselves having to deal with an internal disaster and an external disaster simultaneously. "You assume when you have an internal disaster that you will have assistance from county officials, EMS, and those types of resources. But in our situation, they had their hands full too." *(Also, see "Take advantage of smaller-scale crises to work your disaster plan," p. 52.)*

Plan for the worst

While forecasters could not precisely pinpoint the path of the tornado in West Liberty, there is no question that improvements in weather forecasting have gone a long way toward helping to insure that hospitals are in a position to anticipate the potential for this type of disaster. It made a big difference to hospitals in southern Indiana, another area hit hard by the storms.

"I was in touch with our local EMA agency, and throughout the day [March 2] I was alerting all of our administrators about the possibility that a large-scale tornado could happen," explains **Derek Rainbolt**, the safety director at Margaret Mary Community Hospital (MMCH) in Batesville, IN. "We prepped our evaluation equipment and medical equipment in case of an influx of patients, and kept a significant number of staff here."

Rainbolt was also in touch with other hospitals in the region to share ideas regarding preparations, staffing, transport units, and other critical issues. "We bounced ideas off of each other the whole day," says Rainbolt. "Communication was key."

In the end, the hospital only received six patients over a three-hour time period as a result of the tornado emergency, so the hospital was overly prepared, but Rainbolt stresses that it could have been a lot worse. "You really need to plan for the worst. It does you no good to plan for a small-scale event. Plan for the worst, and that way when you handle a smaller scale event like we did, you can handle it and manage it pretty efficiently," he says.

It is critical that hospital administrators keep in mind that a natural disaster can happen to anybody, adds Rainbolt. "You need to take this seriously and try to plan for it," he says. You want to make sure you have the proper plans in place, your staff have been trained, and you have held some drills."

Then, after an event like this has happened, it is important to analyze what worked well and what could have been better. For instance, at MMCH, there was some minor confusion during the tornado crisis about who was responsible for specific tasks, such as registration and managing the communications line, so Rainbolt is now working with colleagues to update the system and eliminate those issues. He is also in the process of revamping the hospital's emergency operations plan to include more ED staff.

"With disaster planning, you need to focus on the area that is going to get hit first, which is going to be the ED 100% of the time, so we really have to start and end there," he says. "It is their department and they know where everything is," he says. "It just helps with team building to enable them to have a say in the planning process because they're the ones who are going to have to deal with the influx of patients."

Consider non-medical resource needs

As a level 1 trauma center, the University of Louisville Hospital (ULH) began preparing for an influx of patients as soon as it received notification that tornadoes were headed toward the region, explains **Barbara Dimercurio**, RN, MBA, the director of Emergency Services at ULH. "We received calls from outlying facilities asking us how many patients we could manage, and we told them we would take as many patients as they needed to send us," she says.

Then it was a matter of allocating resources. "We had to decide who was going to stay over [from the day shift], who was going to come in, and who was going to operate the ED from a capacity management standpoint," she says. "We had to notify our attending [physicians], and allocate additional physicians to the ED."

In addition, the trauma team was alerted to contact additional staff members and to be prepared for a large influx of patients. "We notified house staff to make sure everyone realized that we needed to get patients in and out of the hos-

pital who could move so that we could allocate beds for tornado victims that would be coming our way," says Dimercurio. "We were under a tornado warning, so 'operation dark cloud' was called, which is the policy we follow in the hospital," she says. "We were unaware of whether the tornado would hit us or not, and we also had an external disaster going on in Indiana."

Since the ED waiting room is full of windows, family members either stayed with their loved ones in the main ED or they were routed to the basement, at least until the tornado warning in the Louisville area ended.

At the time of the tornado emergency, the ED was already operating at full capacity. The main ED only has 29 beds, and yet it averages about 40 patients in that portion of the department by mid-afternoon every day, says Dimercurio. "At one point [during the tornado emergency], we had 90 patients in our ED. They weren't all tornado victims, but we saw 25 tornado-related cases, and we admitted 19 of those," she says. "Every trauma patient [from southern Indiana] was flown here. We had patients that arrived who were amputees, and patients with other substantial injuries — primarily orthopedic injuries."

Staff were able to accommodate the high volume by making use of side hallways and ED entrance areas, and by putting some patients in chairs or recliners. "We used our triage area and our urgent care side, and we decided to put a physician out in triage to help facilitate decisions about which patients would go over to the fast track area and which ones would go to the main ED," observes Dimercurio.

The ED received help from other units in the hospital that sent down staff to assist with patient transport and other tasks. "We had people going to the blood bank to get coolers of blood to take to our trauma room, and we had additional housekeeping, food service, and chaplain services," says Dimercurio. "We expected to receive as many as 100 patients. We didn't, but we were prepared."

In addition, the hospital had plans in place in case the tornado emergency lasted for a longer period of time. "We did not release our day staff until 11 o'clock at night, our night shift staff came in early, and then we began to allocate resources for the next day," recalls Dimercurio. "We were unaware of how long this would actually go on, so we had teams that were prepared to come in at set hours to handle the next wave of patients."

While every crisis has unique characteristics, Dimercurio stresses that regular practice drills make a huge difference in ensuring that staff understand their roles. "You practice, practice, and practice, and make sure everybody is aware of what is going to occur, who is going to run the show, and who is going to be the task driver," she says. "Our staff said it was 'organized chaos,' but I think they ran with it."

Nonetheless, there were some wrinkles in the process that Dimercurio would like to iron out before the next crisis occurs. For instance, she says the hospital underestimated the number of people who would be calling to either locate family members or inquire about their conditions. And because the crisis occurred on a Friday, many of these inquiries came over the weekend when there were fewer people available to run down this information and provide adequate support services.

"From a nursing standpoint, we had it all covered, but things like chaplain services, additional food service and housekeeping staff — those were things that we did not properly account for [as the emergency stretched into Saturday]," she says. "This is something we can improve on in the future. The Red Cross and the Salvation Army need to be available, and just overall, there needs to be a communications plan for the weekend." ■

SOURCES

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Take advantage of smaller-scale crises to work your disaster plan

Joyce Thomas, RN, the emergency preparedness coordinator at Huntsville Hospital in

Huntsville, AL, says practice drills are critical to adequately preparing hospital staff for natural disasters, but for learning purposes, there is nothing like dealing with the real thing. That's why she urges colleagues to take full advantage of smaller-scale crises or emergencies. "If you have a surge of patients one day, open up your plan and start working parts of it," says Thomas. "That's what we have looked at. Why wait for a big disaster when you've got 20 patients in the lobby and your beds are full?"

She also advises hospitals to pay particular attention to their top hazard vulnerabilities when they are carrying out practice drills because these are the things that staff are most likely to confront. "I realize that a terrorist attack could happen, but it is not one of our top five vulnerabilities," she says. "So look a little bit closer at those vulnerabilities and take your drills seriously."

Huntsville Hospital received seven tornado victims when the storms swept through the region in early March, but the area was not nearly as hard hit as southern Indiana or central Kentucky. Nonetheless, it was well-prepared, in part, because of what the hospital dealt with a year ago when a string of powerful tornadoes hit the area hard, resulting in dozens of casualties. "We ended up getting 76 patients the evening of April 27, 2011," recalls Thomas. "We had 33 patients admitted and one fatality."

The hospital has a huge ED equipped with 87 beds, but with advanced warning that the storms were coming, an alternative care site was also activated. "We didn't get the influx we were prepared for," she says. "We have designed our trauma area to hold three patients in a room if we have mass casualties, so we can handle quite a bit."

However, staff did come away from that experience with some important lessons learned about things they could do better the next time. For instance, hospital staff realized they needed to come up with a better way to identify large numbers of patients who present with injuries.

"Out in the field there were so many people injured that they didn't arrive with a disaster triage tag," explains Thomas. Instead, each patient was quickly registered with a 16-digit number, beginning with 999, and a disaster tag. "That turned out to be a big thing for us because when we would go to look at X-rays or lab work, we saw all of these 999 numbers, and everybody looked the same. It was hard to differentiate between the patients."

Consequently, immediately after the crisis, Thomas and her colleagues began looking for a new way to identify patients during these types of crises. You can't conduct a full registration on each patient when so many patients are coming into the ED with injuries because it bogs the system down, says Thomas.

Consequently, the hospital ended up borrowing an idea from a hospital in Druid City, AL, that received hundreds of patients when the tornadoes swept through the area. "They started using unique identifiers for the patients' last names such as 'apple' or 'Volkswagen,'" says Thomas, and the approach worked well.

Thomas worked with colleagues to establish 2,000 unique names that will be at the disposal of staff when future crises occur. "We came up with pre-packets that have the names and a disaster tag, so if a patient shows up at the door without a disaster triage tag, we can give them this unique identifying name right up front," says Thomas, explaining that each packet is equipped with an arm band and quick registration information. "This enables us to do orders immediately instead of waiting for the patient to be fully registered, so if they need a quick CT, we can do it."

The hospital is also reevaluating the codes it uses to alert staff to emergencies, such as a tornado disaster. "Right now if there is a tornado warning in the county we call a 'code gray.' If there is a tornado in the immediate area of the hospital we call a 'code black,'" says Thomas. However, this caused quite a bit of confusion during the tornado emergency last spring because the codes kept changing back and forth as multiple storms moved through the area. "We decided that once we have called a code, we are going to stay in that code a little longer," says Thomas. ■

Rapid intake, empowered nursing staff energize no-wait ED model

Staff-driven solutions deliver high patient satisfaction

Getting an entire staff of physicians, nurses, and techs to do things differently is never easy, but you can clear away hurdles by giving them the ability to formulate some of their own

solutions. That, at least, has been the experience of Swedish Medical Center in Issaquah, WA, in its quest to implement a more efficient, no-wait ED concept. The approach appears to be sitting well with patients, too. Administrators say that that the ED has been able to deliver on its no-wait promise in nearly every case, and patient satisfaction is greater than 95%, according to Press Ganey surveys.

Getting to this point involved a process of trial and experimentation that began with the opening of a free-standing ED back in 2005, explains **John Milne**, MD, MBA, the vice president of medical affairs at Swedish Medical Center, who oversees three of the organization's EDs, including the one at Issaquah. "That was the first step in a bridge strategy as we were building a new hospital in the community," says Milne, noting that he was one of the physicians who started the group that was staffing that ED, which has since closed. "The department we created there was in many ways a laboratory for a variety of things around efficiency, flow, and process."

Given a blank slate to work with, staff were empowered to tweak, tune, and manipulate the no-wait model. And a group of nurses, in particular, were highly motivated to come up with solutions, says **Anne Neethling**, RN, who managed the initial free-standing ED, but is now the nurse manager of the ED on the Issaquah hospital campus. "They were really fed up with the way regular or normal EDs worked, especially the long wait process," says Neethling. "They were given the opportunity to try out some new ways of doing this."

EXECUTIVE SUMMARY

By empowering front-line staff to come up with some of their own solutions, the ED at Swedish Medical Center in Issaquah, WA, has implemented a no-wait model that eschews traditional triage in favor of a rapid intake process that puts patients in beds immediately and kick-starts the evaluation process. While the approach has proven challenging to implement and maintain, patient satisfaction is greater than 95%.

- The no-wait model was developed and fine-tuned by the staff at a free-standing ED that preceded the opening of the hospital in Issaquah, WA.
- Key to the approach is a team-based system that puts all personnel on the same level with no hierarchical structure.
- In the model, charge nurses are under constant pressure to make sure a room is always available for the next patient, and nursing staff are empowered through protocols and standard order sets to respond to patient needs before physicians complete their assessments.

Opt for a rapid intake approach

The result of all this experimentation is a process that begins with a burst of activity as soon as a patient presents for care. "Any patients who come to the front registration desk provide three pieces of information: their name, their birth date, and another identifier. Then they get placed in a room right away, so nobody has to wait outside," says Neethling. "Then the process of triage, diagnostics, and treatment is started immediately, which has been a great satisfier for patients who are not used to this system."

Milne likens this phase of the process to the way pit crews service cars in the midst of a NASCAR race. "We refer to it as swarming," he says. "When a patient comes to a room, you've got the primary nurse who is taking care of him, but then a tech comes into the room, the charge nurse is there as another set of hands, and the physician is trying to get into the room as quickly as possible as well."

During the first five to 10 minutes, there may be as many as six people in the room tending to the patient during the initial intake event. "This ultimately frees up additional resources to move on to that next patient so that when a surge does happen, where you have one patient after another … you are moving faster, so on the back end it saves time in the sense that there is more capacity," says Milne. "The patient is out of the department sooner, so we have another room available."

There can be as many as three or four patient intakes going on at the same time, and by taking care of the diagnostics early on, patients move through the system swiftly, says Milne, contrasting the process with a traditional triage approach. "The concept of triage is essentially a misnomer. You basically have created a bottleneck choke point — a triage nurse or a triage entry point — which, from my perspective, adds limited value," he observes. "The highest-risk person is the one who is waiting in the waiting room, and we all hear stories of facilities where patients die of a heart attack in the waiting room after they have been sitting there for four or five hours after they have been triaged. Triage is not a perfect system, so the better choice, from our perspective, is to get patients back and evaluated, and have a rapid intake process."

Lose the 'hierarchical' structure

While most ED personnel are accustomed to working as part of a team, the approach developed at Swedish takes the concept to another level, essentially putting doctors, nurses, techs, and other personnel all at the same level, says Neethling. "There is no hierarchical structure," she explains. "Most of the time, this is done respectfully. Every now and then it doesn't go so well, but people talk to one another and they are able to depend on one another. That part of the culture is really the basis for this."

Neethling acknowledges that achieving this type of culture in a traditional hospital-based ED has been a much steeper climb than for a freestanding facility because it requires the involvement of many additional departments. "It has been quite a challenge for us, but we are getting there, trying to develop the same sort of teamwork with the inpatient hospital staff," she says.

One early step in the process was a one-day retreat for management staff, including leaders from radiology, the lab, and even primary care, in addition to the ED managers. This took place a few months before the ED at Issaquah opened, and it involved discussions about goals and expectations for the new facility. "Then about one month before the new ED opened, we had a three-day retreat that was targeted at the new staff who were coming in," says Milne. "Leaders from the first free-standing ED [to implement the no-wait process] participated, and there were panel discussions about what it means to be in startup mode, which is a little bit of a unique experience for health care personnel."

The retreat included several workshop sessions focused on customer service, and there were team-building exercises to get the staff accustomed to working with each other in ways that would foster the type of culture administrators were trying to infuse in the new ED. "By the time people began to move into the new facility, there was already a level of camaraderie that had developed out of these experiences," says Milne. However, he acknowledges that building a new culture requires a lot more than a three-day retreat. "It is a continuing, ongoing process," he says.

Listen to staff

In fact, Milne suggests that administrators are now grappling with the biggest challenge involved with implementing the new model: finding ways to sustain the initial vision, and to continue to empower staff to own their portion of the workflow. The burden of this task largely rests with managers, adds Milne, noting that it is not enough to hold a monthly staff meeting.

"Anne [Neethling] comes in early every morning and huddles with staff. She spends time trying to understand their issues while reinforcing the vision, and nipping in the bud any seeds of discontent," says Milne. "At the same time, the staff know she is an advocate for them with senior administration, even while she is continually challenging them to do better."

It's a balancing act, acknowledges Neethling, but staff members are responsive when they have a seat at the table. "This is not a top-down thing that has been mandated. There are obviously budget constraints that have to be followed, but the biggest success from this whole thing came from the fact that the front-line people who were actually doing the job were listened to and taken seriously," she says. "They felt they had some ownership, so that is a big part of what we are still trying to work on every day."

Things don't always go smoothly, to be sure, stresses Neethling. There may be a staffing issue on the floor, or a patient may not get moved along as quickly as he or she should. These issues come up on a daily basis and you have to keep working at them, she says. "However, when you establish ownership, it makes a huge difference. You don't feel like you have to keep pushing people. You can actually work with them and walk with them in the right direction, and encourage others to follow in the same way."

Empower nurses

The charge nurse plays a key role in any ED, but in this model, she or he is the ring master for the department, says Milne. "It is incumbent on the charge nurse to be working hand-in-glove with the physicians to be clear on what workups are being done, where they are at, and making sure that patients who are in the department are only there for as long as they need to be, and then they are disposed efficiently," he says. "The goal of the charge nurse is always to know where the next [free] room is going to be, and to keep the room ready effectively for the next patient who walks in the door."

If every room is full, the charge nurse needs to know which patient can be moved to a discharge holding area or out into the hall so a workup can

be initiated on the next patient, explains Milne. "There is some learned skill in this process. It is not natively intuitive because most of the time nurses who are coming from other facilities tend to have the default feeling that if the patient has been triaged and is out in the waiting room, that's fine. They will deal with the patient when a bed opens up," says Milne. Conversely, in this no-wait model, the pressure is always on to make sure that a bed is always available to do an intake, he adds.

The model also takes advantage of protocols and order sets to enable nurses to get things done early on in the ED visit. "We've got a fairly standardized set of orders that we use for abdominal pain, chest pain, and with regard to plain film X-rays," explains Milne. "We give a lot of latitude to the nursing staff to be able to get orders placed as they need to before the physicians have completed their full assessment. That is a key to this."

This aspect of the model requires a change in thinking for many physicians as well as nurses who have worked in more traditional settings. "It's getting the nursing staff empowered to make decisions about what a patient needs, and to start thinking about using their training to move things forward, so there are a number of components to it," says Milne.

Get used to parallel processing

One of the challenges administrators at the Issaquah ED ran into when they began to implement the no-wait concept was the mentality among many of the ED nurses that it was a sign of weakness to have someone come in and help them with a patient, says Milne. "They were used to doing everything themselves, but they were using serial processing," explains Milne. As a result, it would take 20 to 30 minutes to complete the intake process on a patient.

Conversely, with the "swarming" intake process, there are typically three or four people carrying out several tasks simultaneously, so getting over this mental hurdle took some time, explains Milne. "Once the nurses were able to embrace the concept, the department started humming and moving a lot more efficiently," he says.

There has to be ownership and understanding and teamwork for the model to work well, explains Neethling. "There cannot be anyone, including the physicians, who is a solo flyer because then it doesn't work," she says. "Staff need to learn to respect and rely on other people, including people from other departments that service the ED." ■

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EDs grapple with surging demand from patients with dental problems

Experts say it's a complex problem requiring multiple solutions

With surging demand from patients with both medical and mental health needs, and continuing pressure to reduce costs, ED managers have a full plate of concerns to contend with. But on top of all these issues, new reports suggest that an increasing number of patients are visiting the ED with dental problems. In a new report, *A Costly Dental Destination: Hospital Care Means States Pay Dearly*, The Pew Center on the States in Washington, DC, reports that ED visits for dental problems increased by 16% between 2006 and 2009, and analysts say this trend is continuing.

In fact, most ED managers who work in large, urban settings are well aware of the issue because they contend with it every day. **Hany Attallah**, MD, the assistant medical director in the ED at Grady Memorial Hospital in Atlanta, GA, estimates that out of the 300-350 patients who present for care every day, 20-25 of them have dental issues that should really be dealt with by a dentist.

"There is really not a lot that we can do for them if they just have bad dental disease," says Attallah. However, he adds that such patients can't help but take some attention away from the sicker patients who really need acute care services. The problem is so severe at Grady that the

hospital now pays an outside dentist who has an office within walking distance of the hospital to see many of these patients.

"Very often, if these patients don't have any problems that require an acute intervention, such as an abscess or another severe infection, we have patient navigators who help us to make dental appointments for them," says Attallah. "They do typically have to wait a couple of days for their appointment, but a lot of times that is OK. Often, all that they require is just to follow up with a dentist in a short period of time to get their teeth cleaned and to begin regular dental maintenance."

While this approach works in some cases, there are still plenty of patients who keep returning to the ED for the care of dental complaints. "It does tend to be a bit of a revolving door," acknowledges Attallah. "We are really trying to get these patients in to see the right people, which are dentists, but sometimes that can be very difficult."

EDs and patients face dilemma

Unfortunately, Grady's problems are hardly unique. As the Pew report and several other recent analyses suggest, patients with dental problems are increasingly turning to the ED for care all across the country. Several contributing factors are involved, but experts suggest the biggest issue has to do with a shortage of dentists and, in particular, dentists willing to accept low Medicaid reimbursements for dental care. But some wonder why dentists, as a profession, don't develop a 24/365 access system for patients, regardless of their ability to pay.

"Only 10% of the dentists in Florida participate in the Medicaid program," explains **Frank Catalanotto**, DMD, professor and chair, Department of Community Dentistry and Behavioral Science, University of Florida, Gainesville, FL. "I don't blame the dentists. The fees here are among the worst in the country. But the patients are stuck. That is why you see so many repeat visits to the ED."

Such a dilemma leaves the EDs stuck as well because often the only thing they can do for patients with dental problems is provide pain medication, antibiotics, and a suggestion that they seek care from a dentist. "These patients can't find a dentist, for the most part, and they're typically back in the ED a couple of weeks or a couple of months later," says Catalanotto.

State-level statistics paint a pretty grim picture of the problem. For example, in Florida there were 115,000 visits to the ED for dental-related concerns in 2010, resulting in more than $88 million in charges, explains Catalanotto, noting that the Medicaid group alone has grown by 40% in the last three years. "Something is going wrong in Medicaid. Access is getting more difficult," he adds.

It's an expensive problem because ED care is many times more expensive than preventive care in a dentist's chair. Further, when people have had little to no preventive dental care, serious medical problems can ensue, further running up the tab. "There can be very serious consequences," stresses Catalanotto. "Children and adults have died from untreated dental infections."

This reality was made tragically clear five years ago when 12-year-old Deamonte Driver died following complications associated with a tooth abscess. In that case, which occurred in Prince George's County, MD, Driver's mother had searched for a dentist who would accept Medicaid, but she was unsuccessful.

States consider mid-level dental providers

What can EDs do to address the problem?

EXECUTIVE SUMMARY

Emergency departments across the country are experiencing surging demand from patients who present with toothaches and other dental problems. In a new report, the Pew Center on the States in Washington, DC, reports that ED visits for dental concerns grew by 16% between 2006 and 2009. Analysts say the main contributing factor to this problem is a severe shortage of dentists — particularly dentists willing to accept low reimbursement levels from Medicaid programs. States and EDs are responding to the problem in multiple ways.

- Emergency department providers report that these patients often keep returning to the ED for dental care even though the most ED providers can generally do for them is provide antibiotics and pain medication, and referral to a list of dentists.
- Some EDs have had success distributing dental resource sheets with the names of dental providers who are willing to establish payment plans for patients. Also, some EDs utilize patient navigators to help make dental appointments for patients with dental concerns.
- A number of states are considering laws that would enable mid-level dental providers to provide routine dental care at lower cost. Alaska and Minnesota already allow the practice, although the impact on EDs is not yet clear. State dental associations are fiercely opposed to the practice, and experts acknowledge that no one solution will completely solve the problem.

Attallah says Grady has had some success with the use of a dental resource sheet — a listing of dentists in the area who may be just getting their practices started, and are amenable to setting up payment plans for patients. When patients present to the ED for care of a dental problem, the dental resource sheet provides them with some alternative resources to consider for their dental health needs.

Teaching hospitals that are associated with dental schools have some advantages in that they can perhaps more easily set up ambulatory care clinics that include both medical and dental care. That's what Shands Hospital at the University of Florida in Gainesville has done, explains Catalanotto, although the clinic is still only open between the hours of 8 a.m. and 5 p.m.

"If a child comes in [to the ED] with an emergency [dental problem] on the weekend, no treatment is going to get done. The child will receive antibiotics and pain medication until he or she can get to the dentist on Monday or later in the week," says Catalanotto. Another limitation is that the clinic can only accommodate a total of 24 dental patients per day, so it is helpful, but by no means is it a complete solution to the problem, he says. Nonetheless, Catalanotto advises that county health departments and federally qualified community health centers are other entities that can help to facilitate this type of care — at least during regular working hours.

Another solution that a number of states are considering is legislation to permit mid-level dental providers, sometimes called dental therapists, to provide routine dental care such as filling cavities, replacing crowns, and performing extractions. In some models, these providers work under the supervision of dentists, explains Catalanotto. "They have anywhere from two to four years of education after high school … and they have been used in 50 countries around the world for more than well over 50 years and have a track record of safety and efficacy."

In the United States, only Alaska and Minnesota have thus far passed legislation enabling these mid-level providers to deliver dental care. While this approach has the support of the Pew Center on the States and multiple state coalitions that have gained strength since the Diamonte Driver case, state dental associations are fiercely opposed to the licensing of mid-level dental providers. But to date, none of the state associations have proposed programs for access to urgent dental care.

Multiple solutions are required

Minnesota passed its law enabling mid-level dental providers to practice in the state in 2009, but establishing training programs for dental therapists has taken time. "The first cohorts graduated last year," explains **Colleen Brickle**, RDH, RF, EdD, the dean of Health Sciences at Normandale Community College in Bloomington, MN. "The most anyone has worked as a dental therapist is about three to four months … so it is difficult at this point to measure any impact [on EDs]."

In the meantime, Hennepin County Medical Center (HCMC) in Minneapolis, MN, continues to see a large volume of dental-related visits to its ED, acknowledges **Mary Seieroe**, DDS, director of the dentistry clinic at HCMC. "Dental access is a complex issue, with the core dilemma being that oral health is considered optional and is not part of general health care. Dental services, reimbursement levels, delivery systems, and the workforce have developed in ways that reflect this," says Seieroe. "The inappropriate use of EDs for dental problems will not be solved by a single approach. It will require changes at all levels of the delivery and reimbursement systems, and education of the public."

While some experts have suggested that perhaps EDs should have mid-level dental providers on staff, Seieroe suggests that is not a particularly workable solution. "The scope of services that dental therapists, or even advanced dental therapists, can provide greatly limits the ability to effectively utilize these providers in an ED setting. They may be able to play a role in triaging dental patients in hospitals that have onsite dental services, but current reimbursement models make this financially unsustainable," she explains.

The dental department and the ED at HCHC are collaborating to develop strategies to address

COMING IN FUTURE MONTHS

- Reengineering triage
- Facilitating rapid improvement
- Trauma prevention outreach
- Using lean to streamline patient flow

the growing number of patients who are presenting to the ED with dental pain and infections, says Seieroe, but she suggests that dental therapists are likely to have the greatest impact by providing increased access to basic oral health care in primary care settings. "To address the ED issue, more needs to be done, particularly in investigating new economic models for health care that incorporate oral health as an essential component of general health." ■

SOURCES

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CNE/CME OBJECTIVES

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 your peers in the publication. ■

CNE/CME INSTRUCTIONS

HERE ARE THE STEPS YOU NEED TO TAKE TO EARN CREDIT FOR THIS ACTIVITY:

1. Read and study the activity, using the provided references for further research.
2. Log on to **www.cmecity.com** to take a post-test; tests can be taken after each issue or collectively at the end of the semester. *First-time users will have to register on the site using the 8-digit subscriber number printed on their mailing label, invoice, or renewal notice.*
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 successfully completing the last test of the semester, your browser will be automatically directed to the activity evaluation form, which you will submit online.
5. Once the evaluation is received, a credit letter will be sent to you. ■

CNE/CME QUESTIONS

1**. Gail Perry**, CEN, says that one of the biggest challenges the hospital faced in evacuating patients after the hospital sustained tornado damage was:
A. getting staff into work
B. finding a facility to take in the patients
C. communications
D. contacting family members

2. According to **Barbara Dimercurio**, RN, MBA, in which one area did hospital staff miscalculate their needs during the recent tornado emergency?
A. The hospital underestimated the number of people who would be calling to either locate family members or inquire about their conditions over the weekend.
B. The hospital didn't have plans for what staff would do if the facility was threatened.
C. The hospital didn't have enough trauma teams on call.
D. Specialty care was in short supply during the tornado emergency.

3. According to **John Milne**, MD, MBA, what does "swarming" refer to in the ED?
A. This is when the waiting room fills up with patients.
B. This describes the rapid intake process utilized when patients present for care.
C. This is one aspect of the hospital's natural disaster plan.
D. This is what happens when throughput gets bogged down at the point of triage.

4. According to Milne, who is the patient at highest risk in the ED?
A. the patient suffering from a stroke
B. the patient suffering from chest pain
C. the patient who arrives with no family or friends for support
D. the patient who is waiting in the waiting room

5. According to a new report by the Pew Center on the States in Washington, DC, what is the main reason why increasing numbers of patients are turning to the ED for care of their dental problems?
A. The economy is poor and unemployment is high.
B. There is a shortage of dentists and, in particular, dentists willing to accept low Medicaid reimbursements for dental care.
C. There is a lack of education about preventive dental care.
D. Patients like going to the ED for all of their care needs.

6. According to **Mary Seieroe**, DDS, dental access is a complex issue, but the core dilemma is:
A. Oral health is considered optional rather than part of general health care.
B. Patients need education about the importance of preventive dental care.
C. Dentists need to realize that they need to accept more patients.
D. EDs need to start offering basic dental care.