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The monthly update on Emergency Department Management

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Virginia Tech disaster response shows value of regular drills and planning

Despite smooth response, however, leaders plan improvements for the future

When **Mike Hill**, RN, the ED director at Montgomery Regional Hospital in Blacksburg, VA, reported to work at about 7:30 a.m. on April 16, 2007, he noticed a large number of people in the trauma room. Although he didn't know it yet, "They were working the second victim of the first shooting" at Virginia Tech University.

"We got her stabilized and transferred her to the Level I trauma center at Roanoke [VA] Memorial to treat her neurological problems," he says. "Among ourselves, we thought it was a murder-suicide — domestic incident."

By the time the second wave of 17 patients arrived, **David Linkous**, RN, MEd, the hospital's emergency planner, also knew this would be no ordinary day. "I had called in to take a vacation day, because a large tree had fallen down in my yard," recalls Linkous, himself a former ED manager. Police were looking for a suspect for the first shooting. "Then roughly at 10 o'clock, I heard on the [police] radio that shots had been fired, and a response was requested at North Hall," he says. "About that time, I was notified I no longer had the day off."

If there was any "silver lining" to the horrific tragedy that befell Virginia Tech on that Monday morning, it is that the medical community responded magnificently. At

Executive Summary

The response to the recent shooting tragedy in Virginia shows that key components of a disaster plan, when well designed and regularly practiced, can help staff swing into action and follow the plan with as few glitches as possible. It also points out the critical nature of accurate and uninterrupted communications.

- A color-coded triage process in the field can help avoid logjams in the ED. Having a triage nurse at the ED entrance to double-check patients will further ensure appropriate care.
- Have a well-defined "telephone tree" in place to ensure adequate staff when disaster strikes.
- Make sure your plan accounts for the loss of traditional sources of communication, such as cell phones.

Montgomery Regional, which received most of the patients, the lives of all 17 patients who arrived there were saved. What's more, say those in charge of disaster response, the staff responded so enthusiastically that in at least one department the manager had more help than he needed.

Linkous and Hill attribute the response to regular disaster planning and drills. "We generally have three or four drills of some type each year. Some are full-scale drills, while others may be table-top exercises," says Linkous, noting that The Joint Commission requires at least one large-scale disaster drill and one table-top drill per year.

"We also participate in statewide and regional drills," he adds. "For example, last April, we utilized an old abandoned motel and staged the explosion of a chemical truck."

The hospital disaster plan delineates staff responsibilities, policies, and appropriate responses for different types of disaster. "It's basically the same 'tree,' modified by condition," notes Hill.

The planning process is handled by the Emergency Management Committee, which includes department directors: ED director, director of pharmacy, infection control, the lab, X-ray, safety and security, engineering, chief nursing officer, the associate administrator, an emergency physician, and a public relations representative.

From drill to reality

Much of what was practiced during the drills was put into use in the aftermath of the Virginia Tech shootings. For example, as part of the hospital's HICS (Hospital Incident Command System) plan, all victims receive a red, yellow, green, or black tag after being triaged in the field.

Of the 17 patients, all but four were gunshot wounds. Four were critical (red); eight immediate (yellow), deemed able to wait an hour or so for treatment; and five green, which meant care could be delayed. The green patients were sent to outpatient surgery for holding, and they were cared for by nurses. (Patients with black tags, for "non-viable," were not even brought to the facility).

The majority of the "immediates" were broken bones or "through and throughs" (gunshot wounds), recalls Hill. "You have to remember, any yellow can change to red, but they get reassessed if they turn pale, if their BP drops, and so forth." Still, he says, the tagging in the field done by EMS was "pretty much on the money."

In the event a patient arrives with a green tag but appears to be sicker, a nurse at the door can re-tag them.

Calls hardly needed

While the disaster plan clearly outlines a method for calling in extra staff, this part of the plan was hardly needed on the day of the shootings. "If there is a large influx of patients we go to Condition Green. We go on alert and call all the staff, including ancillary staff,

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which is what we did that day," says Hill.

Once employees arrived at the hospital, they reported to the cafeteria to sign in, indicate their skill level, and then they were assigned to a unit based on what was needed. "We did all that, but we had a *huge* turnout," says Hill. "Most people in the ED did not even have to get a call. They saw a report on the TV or heard about it on the radio."

The ED had no problem getting staff to report. "I have 40 staff members, and 33 of them were here," says Hill. In fact, he adds, a list had to be made of staff who should be asked to *leave* the ED. "You don't want *too* many staff, because then you can't maneuver around," he explains.

Communications an issue

One of the issues that became more serious as the day went on was communications — which involved the use of cell phones. "When you've got a school of 27,000 students and the shootings made the national news, the Moms and Dads all called, and all cell phones shut down," explains Hill.

The hospital was receiving conflicting reports, adds Linkous. "From one source, we were told we had gotten all the patients we would get," he says. "Another said more were coming. That's where another part of our plan came into play."

That part of the plan involved putting a liaison at the scene, so when communication became a problem Linkous headed down to the command center to fill that role. "He was able to contact me directly, so we had a better understanding of what was going on," says Hill.

Still, in the hospital debriefing that followed the incident, it was agreed that the committee would look into some portable two-way radios to be used as another source of communication.

For the most part, Linkous is pleased with the hospital's response. "I think it went just like the plan predicted — a lot better than anticipated," he says.

People from the lab, from X-ray, and nurses from other departments were in the ED, Linkous says. "When you implement Code Green, you are supposed to send nurses there from each department," he says. "Other department directors also came down."

In addition, he notes, elective surgeries were cancelled to relieve pressure on the ED. "People who were there being prepped for outpatient surgery were sent home, and we called those who were scheduled for surgery [to cancel]," he says. "This opened up 24 beds for ED overflow."

Another aspect of pre-planning that proved very helpful involved disaster carts, which contained intravenous solution, bandages, and other general trauma supplies. "We had designed these carts several years ago, and they were rolled down to an area between the ED and outpatient surgery, in case they ran out of supplies," says Linkous. "We emptied a couple," Hill reports.

You can't plan for everything, Linkous concedes, but in some cases staff members anticipated things the formal plan did not. "A pharmacist came down and brought extra meds — mostly antibiotics and rapid-sequence intubation drugs — and stood at the nurses' station and dispensed them as needed," he says. "This will be in the plan from here on out." ■

Counseling is essential following a disaster

The availability of group and individual counseling for hospital staff following two shootings within eight months of each other in Blacksburg, VA, was invaluable, says **Mike Hill**, RN, the ED director at Montgomery Regional Hospital, which treated 17 victims of the recent shootings at Virginia Tech University.

"When I started 20 years ago, we did not have sessions like this. You were just expected to go on your way," he recalls. "Responders have killed themselves after events like these."

Each event brought with it its own type of stress, notes Hill. In the first incident, a shooting of a hospital security guard and a deputy sheriff in August 2006, the incident involved someone who had grown up in the community.

"This event occurred with someone the whole ED staff knew and saw shot down," notes **David Linkous**, RN, MEd, the hospital's emergency planner. Hill says, "The [security guard] was a local guy who grew up in the system and had checked on the nurses just before the incident."

This type of experience, Hill continues, can lead to

post-traumatic stress disorder. "In fact, some people are still going to counseling for the first event," he notes.

The more recent event involved "seven hours of stressful, high-tempo work, but all of the patients lived," notes Hill. "Anyone in medicine's goal is to do all you can to save a life. Still, once you go home and think about 33 kids not making it, *that's* what tugs at your heart."

The hospital provided group sessions, which were facilitated by staff members of the employee assistance program, and individual sessions. "There were a number of counselors on the premises for more than week after [the most recent incident]," says Linkous. Staff who thought they needed help were encouraged to ask, he says. "The day of the event, counseling was offered to families and friends of staff members as well," Linkous says. In addition, he says, directors were on the lookout for people who appeared to need counseling, but "nobody was forced to take counseling."

The group discussions are valuable, says Linkous, "Because they enable you to see that others feel the same way you do." In fact, says Hill, he and Linkous attended a group debriefing for one of the local rescue squads the night after the most recent incident. "It was good to hear what they had to say, and what they were feeling," he says. ■

'Culture of safety' sets tone for improvement

Registration times slashed, elopement rate cut

Executive Summary

Before you implement patient safety initiatives, build a strong foundation of safety awareness among your staff. Then, institute multiple solutions to achieve the most wide-ranging results possible.

- Have several of your senior nurses give staff presentations, with each discussing key patient safety considerations in their specialty.
- Use 'patient flow managers' at remote locations to monitor and critique staff performance in real time.
- Employ manufacturing-based process improvement such as lean methodology to uncover additional opportunities to enhance safety.

By laying a strong culture of safety as a foundation, ED leaders at Moses Cone Health System in Greensboro, NC, have achieved impressive process improvements tied to patient safety. For example:

• Time to armband has dropped from 47 minutes to less than four minutes, while meeting a National Patient Safety Goal for two forms of identification.

• The "elopement" rate is down from 10% to 4.4%.

• An electronic "safety portal" reconciles medications and provides printouts for patients.

It all began about four years ago when **Marion C. Martin**, RN, MSN, MBA, the system's patient safety officer was (until 2006) director of emergency services for its Level II trauma ED. Martin initiated a series of patient safety education programs.

"Those nurses who had long tenure, leadership skills, and special training were assigned," she says. At Moses Cone, RNs receive a level designation of one to four based on seniority, and the programs were led by RN-3s, says Martin. The programs addressed five specialties: pediatrics, trauma, pulmonary care, neurosurgery/neurology, and behavior health.

The nurses gave their presentations at staff meetings, addressing safety issues, documentation, sharing of data, and so forth. So, for example, the RN-3 addressing trauma talked about how to get the ED physician to the trauma room as quickly as possible when a patient presents, capturing any acute changes in the patient, getting critical values, and conducting a rapid assessment.

"They addressed a number of quality indicators," adds Martin. "When discussing stroke, for example, since our nurses can call a stroke code, they would talk about getting tPAs [Tissue Plasminogen Activator] on board quickly, or how quickly you should get a patient to a CT scan." The messages must have hit home. Moses Cone recently was certified as a Primary Stroke Center by The Joint Commission.

Improving processes

With additional education under their belts and the importance of patient safety effectively communicated, Martin and **Kathy Haddix-Hill**, RN, MSN, executive director of emergency services, instituted initiatives to improve processes and speed patient care.

For example, in the past, patient identification was inconsistent and time-consuming. "If we were busy, the patient would have to wait in the waiting room; and when the triage nurse got caught up, they'd call them, and then they would get an [identification] armband," says Martin.

Using "Lean" methodology first developed by Toyota, a new system was created. Patients now are triaged upon arrival, then brought straight back to a

Source

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room to get an armband that has all their vital information: medical record number, visit number, name, and date of birth. **(For more on Lean methodology, see "EDs boost performance with web-based data system," *ED Management,* February 2007, p. 20.)** "Based on everyone's involvement, we've gone from 47 minutes average time to armband to three minutes and 12 seconds — which is when the protocols start," says Martin. "It also meets one of the National Patient Safety Goals: having [at least] two patient identifiers."

Haddix-Hill adds, "We in ED management are really into keeping the staff and patients safe. This was a big initiative for us."

Another important initiative involves patient flow managers — a number of individuals at a remote location who monitor ED patients 24/7 electronically. "They see when the patient arrives, how long it is until they are seen by a doctor, and when they are admitted to a bed," says Martin. If they note a delay in any process, she continues, they will call the physician or nurse. "This has helped tremendously in elopement, which has gone from 10% to 4.4%," Martin says. "We've also lowered average time in the department by 17 minutes."

Another move that has speeded patient care is the transformation of a small office in the ED into an EKG room. "Now, if patients check in with chest pain, they can get an EKG in 10 minutes or less," says Martin.

Keeping track of meds

Moses Cone also remains compliant with The Joint Commission medication standards using the EmSTAT Emergency Department Information System (EDIS) from A4 Health Systems of Cary, NC, and Dallas. "We have flags in our system that pop up with alerts for the physicians if they attempt, for example, to prescribe a medicine to which the patient is allergic," says Haddix-Hill. "It will also indicate if it will not work well with other drugs they are taking."

Because the system has a safety portal, they have an electronic way to enter any adverse outcomes, adds Martin. She also notes that the system, which was implemented two years ago, will print off a list of the patient's medications, which they will receive as part of the discharge process. This meets another patient safety goal for reconciling the patient's medications, Martin says.

Another initiative set to begin shortly is a remote electronic ICU the system calls *e*-Link Critical Care. With this system, a team of doctors and nurses specializing in intensive care monitors ICU patients' lab results, heart rates, breathing, and other factors from a dedicated control room. Computers track vital signs and alert the team when a patient's condition begins to deteriorate. The team alerts critical care nurses in the intensive care units before problems develop. "This will be a big safety factor," Martin predicts. **(For more on remote ICUs, see "ED uses 'Virtual ICU' to improve patient care," *ED Management,* March 2007, p. 31.)** ■

Translation technology fills important niche

Computers supplement interpreters, phone lines

Emergency health care experts agree that the ideal way to enhance treatment of patients who do not speak English or who are hearing impaired is a live interpreter, and indeed, many EDs do offer such a service. However, these individuals, and even telephonic translation services, are not always available immediately in an emergent situation, when time is of the essence.

A growing number of EDs have found they can make translation services immediately available to these patients through technology. Several vendors now provide software systems that can be accessed

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Software systems that can interpret and translate foreign languages can augment existing services and be available immediately, when live interpreters or even phone services may not be. Knowledge of their capabilities and cost can help you narrow your decision.

- Systems will take you from registration process through triage to diagnosis.
- All systems will provide text and audio translation. The more sophisticated systems also offer video services and sign language for deaf patients.
- The cost can be more than $100,000, but local foundations may offer grants that will cover your expenses.

via a laptop, and they provide two-way interpretation between the provider and the patient.

One such vendor is Medbridge Systems, which has offices in Boston and Canada. Medbridge, whose system has been in use in hospitals since 2002, now is in 26 EDs, according to **Beth Webster**, vice president of business development. A newer entrant in the market, Denver-based VoiceBot, is just beginning to market its product.

Another recent entry is Language Line HealthPort, designed by principals of Polyglot Systems, a Morrisville, NC-based firm that has been in this market for several years, and released with Monterey, CA-based Language Line Services. **(See resource box, right.)**

How systems work

The Medbridge and Polyglot software enable several kinds of communication: text, audio and video. The VoiceBot system uses text and audio.

"When the patient comes into the ED at triage, first thing you do is identify their language, by asking the patient or showing them phrases in different languages," explains Webster. "Once you've done that, you can immediately go through quick registration and then triage." Through a series of questions and responses, the provider can determine the patient's main complaint, explain the treatment, and so forth.

To serve the hearing-impaired, the Medbridge system employs videos, with an interpreter signing the questions and answers. *(Editor's note: You can view a demonstration of VoiceBot by going to www.univg.com/demo. A Medbridge demo is available by contacting Webster.* **See resource box, right.)**

"You are able to immediately interact with the patient," says Webster. "Just knowing they can hear that voice in their language is calming to the patient, and releases stress for the health professional as well."

Since it is important these messages be delivered correctly, VoiceBot uses only native-language speakers, says president **Bob Priddy**. "We can do it in any dialect," he says. While at present the system only employs Spanish; by July, it will have the most common six non-English languages; in addition to Spanish, they are Mandarin, Cantonese, Vietnamese, Arabic, and Russian. Priddy says his firm has trademarked the term "*e*-terpretation" to identify its technology.

These systems are of greatest value on nights and weekends, when the availability of an interpreter is not as great, Webster says. **Debbie Fleischmann**, MPA, RN, CNAA, BC, administrative director of emergency services at Howard County General Hospital in Columbia, MD, agrees. "While we are part of the Johns Hopkins Medicine system and do have access to contracted services — with one call to a central number we can request an interpreter to come on site — we also use AT&T's Language Line as another means of providing services. Both of those can take a little bit time to put together," says Fleischmann, explaining why her department is starting to pilot the Medbridge system. "We felt strongly that in order to improve care, we wanted to be able to help patients immediately. "The AT&T Language Line is a joint venture with Language Line Services. It involves dialing (800) 528-5888, asking for the language you want, and having a live translator come on the line to speak one of 70 languages."

Sources/Resources

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- **Language Line Services**, Monterey, CA. Phone: (877) 886-3885. E-mail: info@languageline.com. Web: languageline.com/page/products_and_solutions.

Costs can vary

Depending on the type of system you want, the investment can be significant. For example, Medbridge will let you purchase a one-time license for unlimited use, or pay on a monthly basis for 36 months. The unlimited use arrangement costs $48,675 for a facility of fewer than 200 beds; $98,675 for a facility of more than 200 beds but fewer than 400; and $135,675 if your facility has more than 500 beds. However, says Webster, the monthly fee for a midsized facility would be about $3,741.

Priddy says his system "maxes out" at $4,000 for a hospital with 1,251 FTEs or more, with a small hospital paying as little as $1,000. "We would prorate the cost to a single department," adds Priddy, asserting

that "the system will pay for itself in a matter of hours." An ED, he says, can calculate return on investment based primarily on three factors:

- direct reduction in human interpretation costs;
- reduction in direct staffing expense associated with registering, managing, treating, and discharging non-English-speaking patients. Studies show up to double the staff time devoted to non-English speakers;
- reduction in ancillary testing, medication, and other supply costs. Studies show up to double the additional confirmatory and defensive ordering for non-English speakers.

These costs do not have to come out of your department's pocket, notes Fleishmann. "We got a grant from a local foundation whose goals are to improve quality of life and access to health care," she says. "They do a needs assessment in our community and set strategic goals each year; this year it was improving health care access information for non-English speakers."

Underscoring the basis of her decision, Fleischmann says, "We were really intrigued by the possibilities it could offer us for the immediacy of need that occurs in the ED. What does that nurse do out in triage that has a patient arrive who has limited English proficiency, and needs to find out information *right now?"* ■

Multi-pronged approach eases on-call challenge

Offering stipends is not always best solution

Hospitals in Boston, like facilities in many other major cities, are paying $1,000 or more to lure specialists to be on-call for ED coverage, according to a recent article in the *The Boston Globe*.[1]

"You can find stipends of $2,000 or more across the country," notes **John Benanti**, MD, FACEP, chairman of the Department of Emergency Medicine at South Shore Hospital, Weymouth, MA, and president of the Massachusetts chapter of the American College of Emergency Physicians.

However, while South Shore must compete with other facilities and pays some specialists to take calls, Benanti says that money is not always the answer. His facility pursues several strategies to fill this critical need. "There are a lot of [specialist] groups that are *not* asking for money; they are asking the hospital to hire PAs [physician assistants] to do a lot of their work, so they can just come in and do their surgery," Benanti says.

Several other groups ask for hospitalists or generalists to handle a number of surgeries, he says. "We have one of the largest hospitalist programs in New England, and they do take on surgery cases," says Benanti. If there is an elderly patient with a hip fracture, for example, there are often a lot of comorbidities that the hospitalist can address, while the surgeon can focus on operative care.

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Money will not always solve your call panel problems; lifestyle issues often are of great concern to specialists reluctant to take ED call. One Massachusetts hospital uses several strategies to entice specialists.

- Use hospitalists to handle patient comorbidities.
- Physician assistants can provide patient care and free surgeons, for example, to deal only with the surgery itself.
- If your facility offers stipends, be prepared to offer upward of $1,000.

Paid, unpaid call

On-call coverage at South Shore can be compensated or uncompensated. The physician has to be a beeper or a phone call away, says Benanti. "On-site overage is compensated, but they must be on campus," he says.

At his facility, OB/GYN and general surgeons are on-site, as are anesthesiologists and anesthesia intensivists. Neurosurgeons, orthopedics, and interventional cardiologists "all are on-call to the ED," he says.

At present, says Benanti, general, trauma, and orthopedic surgeons are paid to take calls. "Other groups are asking," he says, noting that decisions are made one group at a time. He predicts the request for paid call will happen more and more.

The hospitalist program, which started in 2000, includes 25 full- and part-time staff. The PA program, which started in 2004, includes 14, nine of whom (all full-time employees) are assigned to the ED. There are also three part-timers.

This option, too, costs the hospital money. "PAs cost money, as do hospitalists, when you have an employed model like us," Benanti says.

Approach makes sense

A multi-pronged approach such as the one adopted by South Shore makes sense to **K. John McConnell**, PhD, assistant professor at the Center for Policy and Research in Emergency Medicine, Department of Emergency Medicine, Oregon Health and Science

Sources

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University, Portland. McConnell is lead author of a recent paper that studied the on-call crisis in Oregon.[2]

"A good example [of why such an approach is needed] might be a smaller hospital that has maybe just two orthopods or OB/GYNs, and they do not want to take call every other night; it's not even a matter of money," he asserts. "So, some of the other things we're seeing here in Oregon involve the hospital telling a surgeon they will give him or her privileges, but they will also contract with *locum tenans* surgeons to take three calls a week."

What about offering PA or hospitalist support instead of pay, as South Shore is doing? That probably works, "but my sense is it is different for every hospital and specialty," McConnell says. There are major issues with radiology, for example, he says. "Attendings do not want to come in unless it is *absolutely* necessary," McConnell says. "At one academic facility, they had residents read imaging, but that did not cut the mustard — they missed too many things."

Another model being suggested, says McConnell, is having an acute care surgeon — or "surgicalist" — on staff. This person would be based in the facility, just like a hospitalist.

Difficult trade-offs

The growing cost of these options has hospitals making difficult decisions. For example, notes McConnell, in 2005 seven trauma hospitals in Oregon had their trauma designation downgraded from II to III or threatened to be downgraded because of on-call issues. They had to juggle with the choice of paying out perhaps half a million dollars a year or facing the downgrade, he explains.

It puts a great strain on a lot of hospitals to provide on-call specialists, says Benanti, "But the alternative is much worse if you can't provide the services patients need and expect in a timely fashion," he says.

The primary challenge, says McConnell, "is to determine what the right blend is to make sure specialists are available, and that everyone is reasonably happy, and making sure nobody's leaving the hospital [without being treated] — which is happening all over the country."

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Study: MI mortality rate higher on the weekends

'Gold standard' treatments not often provided

A new study in *The New England Journal of Medicine* formally confirms what many ED managers already know: Patients who are admitted to the ED on the weekends do not receive the same level of care as those admitted during the week.[1] In fact, the study shows, mortality at 30 days was significantly higher for patients admitted on weekends (12.9% vs. 12.0%), and these patients were less likely to undergo invasive cardiac procedures, especially on the first and second days of hospitalization.

"In other words, about one in 100 patients suffering their first heart attack on a Saturday or Sunday may be dying unnecessarily," says **William J. Kostis**, PhD, lead author of the article and a fourth-year medical student

Executive Summary

A new study confirms suspicions of ED experts: Myocardial infarction (MI) patients who present to the ED on weekend have higher mortality rates than those who present during the week. Some of the causes can only be addressed by systemwide solutions; others can be tackled by ED managers.

- Lobby your administrator to have an appropriate number of staff members available on weekends. A strong financial case can be made for such a change.
- Do not accept halfway measures. Poor patient care could increase your liability.
- Managing resources on a regional basis also will help weekend MI victims get the care they need.

and a researcher in the Department of Medicine at the Robert Wood Johnson Medical School in Piscataway, NJ. In the critical day of admission and the day following, patients treated on the weekend during the last four years were one-third less likely than weekday patients to get a percutaneous coronary intervention (PCI), which is one of the American Hospital Association and American College of Cardiology standards for best treatment.

These findings are not a surprise, says **Todd Taylor**, MD, an emergency physician in Nashville, TN, and an officer of the American College of Emergency Physicians. "In fact, I've been saying these things in lectures I have given," Taylor says. This article, among others, he says, shows that whether you survive a heart attack now depends more on the time of day, the day of the week, and the type of insurance you have, more than on any other factor.

Why the difference?

What causes this variation in care? "It may be due to a difference in the availability of cardiologists and cath labs, which are necessary for all appropriate procedures to be done," offers Kostis.

Taylor agrees. "We know how to treat heart attacks," he says. "The problem is we do not possess all of the resources to do what we need to do on weekend." Clearly, it is the availability of the types of specialists needed to provide the most effective treatment for acute myocardial infarctions (MIs), he says.

There are other therapies that can be delivered, he notes, but they are not as effective as primary angioplasty. "When you have a heart attack, if they take you to the cath lab, open you up and put a stent in, that has been shown to be the most effective treatment," he observes.

Basically, he says, three things are needed to make such procedures possible: A cardiac catheterization lab that can do interventional procedures; nursing and other staff who are available in a short time frame; and a specialist — typically an interventional cardiologist.

Why aren't they available on weekends? "The primary reason is the cost of having, maintaining, and staffing a cath lab that is available 24/7," Taylor says. "Beyond that, it becomes a bit more of an organizational issue."

In some regions, he says, there just aren't enough interventional cardiologists to make one available to every facility that needs one.

Solutions offered

One of the potential solutions is managing resources on a regional basis, as the Institute of Medicine recommended in its landmark study on emergency medicine published last summer, Taylor says. **(For more, see the special coverage of this study in the July 2006 issue of *ED Management*.)** But this is clearly something that is decided and organized at a level far above that of the individual ED and its manager.

What can an ED manager do in his or her facility to help improve weekend care for heart attack patients? "An individual ED manager can make a very strong argument from a financial perspective," Taylor says. "Cardiac care, for most major hospitals, pays well — like orthopedics."

Having appropriate staff on hand for weekends would pay for itself, Taylor argues. The biggest challenge an ED manager will face, however, is the desire of upper management to tweak the budget. "They may, for example, look at the number of heart attacks, see that between 1 a.m. and 7 a.m., there are not that many, and decide not to pay to have physicians on call after midnight," he says. "But when you put up a big red sign that says 'emergency,' and then you make ill and injured people wait, bad things will happen: Patients will suffer, the ED staff will suffer, and ultimately patients will get discouraged and leave and/or staff will quit."

Thus, Taylor warns ED managers, do *not* accept half a solution. "Unless you get a commitment from administration to have an interventional cath lab 24/7 with support cardiologists, don't allow them to force you into calling yourselves a 'cardiac center,'" he says. Bad patient care in such a situation could get the hospital sued, he warns. "Besides," he concludes, "coming in Wednesday and getting one type of care, then getting another type on Saturday is not only not right, but some might call it unethical. Ultimately, some lawyer may end up convincing you you're not right."

Sources

For more information on weekend treatment of heart attack victims, contact:

- **William J. Kostis**, PhD, Department of Medicine, Robert Wood Johnson Medical School, Piscataway, NJ. E-mail: kostiswj@umdnj.edu.
- **Todd B. Taylor**, MD, FACEP, 2714 Westwood Ave., Nashville, TN 37212-5218. Phone: (480) 731-4665. E-mail: ttaylor@acep.org.

Reference

1. Kostis WJ, Demissie K, Marcella SW, et al. Weekend versus weekday admission and mortality from myocardial infarction. *N Engl J Med* 2007; 356:1,099-1,165. ■

Concurrent projects aim to improve satisfaction

IHI initiative engenders patient-centered care

In the wake of patient complaints about long wait times and lengths of stay, the ED leadership at Williamsport (PA) Hospital took the bull by the horns and has instituted several concurrent initiatives aimed at turning things around.

The decision was made a little over a year ago based on responses from in-house surveys of patients, says **Becky Hess**, RN, BSN, the ED manager. They decided to participate in Boston-based Institute for Healthcare Improvement initiative, titled Operational and Clinical Improvement in the ED, she tells *ED Management*.

The programs at Williamsport include:

• adding a patient service representative who greets patients upon arrivals and sees to many of their needs during their stay;

• using physician assistants (PAs) instead of physicians in the Urgicenter, which is located across from the ED;

• using a "pool-til-full" approach to triage;

• using more efficient admit and discharge processes.

On-site patient satisfaction surveys conducted by the staff already have shown positive responses to the new initiatives: For ED patients, rates have risen from a low of 65.6% in November 2006 to 83.3% in February 2007. (The rate was 90.2% in December 2006.) For Urgicenter patients, the rate has risen from 83.7% to 88.1%. "For overall care and services in the ED, we were rated 'good' or 'very good' 89% of the time," Hess adds.

Executive Summary

A concerted effort involving several initiatives can make a big difference in your patient satisfaction scores. The ED at Williamsport (PA) Hospital increased their rates from a low of 65.6% to more than 83% in less than 18 months using strategies that included:

- the addition of patient service representatives to help make patients more comfortable and keep them apprised of waiting time expectations.
- a switch in primary staffing of the 'Urgicenter' from physicians to physician assistants.
- a new triage process that gets patients back into the ED proper much more quickly.

Source

For more information on improving patient satisfaction, contact:

- **Becky Hess**, RN, BSN, ED Manager, Williamsport Hospital, Williamsport, PA 17701. Phone: (570) 321-1000.

In addition, she reports that:

• average length of stay (LOS) in the Urgicenter has gone from 90 minutes to 75 minutes;

• average LOS for patients admitted through the ED is down from 300 minutes to 207 minutes;

• average treat-and-release time, which was 253 minutes, is now 136 minutes.

Service with a smile

Patient service representative **Barbara Wilson** starts interacting with patients as soon as they come in the door.

"Basically, I go out and introduce myself, and see if they need something — like a wheelchair," she says. "Once they are seated and comfortable, I hand them a survey and ask if they can tell us how we treated them throughout the process." Wilson adds that she will not ask this of a patient who is clearly not feeling well. When the patients have completed the surveys, they can give them back to a patient service representative, return them using a self-addressed stamped envelope provided by the hospital, or use one of several drop-off boxes in the department.

Once a patient has been waiting more than half an hour, she will ask if she can get them a drink; if they and their family have been there considerably longer, she will also offer free sandwiches, which she obtains from the cafeteria. "I'll ask if they need a blanket — and if they say yes, I will give them a *warm* one," she adds. Wilson will also frequently update the patients on their stage of care and how soon they will be tended to.

According to Hess, there are 12 patient service representatives. There is double coverage in the ED every day from 9 a.m. until 6 p.m. "We wanted to put somebody in place to update patients, let them know what's happening, and keep them comfortable while they are waiting," she explains. "We are also working on the 'back end' to get rates down."

Speeding up processes

Several steps have been taken on the patient care end to speed care processes, starting with the "pool-til-full"

concept, Hess says. "Instead of doing a full triage in the morning, we will take the patient right back to the ED, get them worked up right away, and have a doctor see them quicker," says Hess, noting this was made possible by adding bedside registration.

In addition, she says, the department set a time limit of under 15 minutes for bed placement. "All inpatient units are on board with that," she says. "We worked through a process where a staffer is assigned on each unit to be aware of where the empty beds are, so when they get a call they already know where the next patient needs to go."

Targets set in Urgicenter

In the Urgicenter, which handles the less acute cases, there had not been an emphasis on getting people seen and out quickly. "We set some targets for ourselves," Hess says. "A lot of the improvement has been staff awareness of a need to cut times down." In addition, there are no longer any physicians working directly in the Urgicenter — just PAs. "We have double PA coverage from 10 a.m. to 9:30 p.m. and an extra nurse during that same time period, seven days a week," Hess notes.

In terms of throughput, Hess says she has initiated some protocols the nurses follow, based on presenting symptoms, to get lab work and X-rays done before the physician provider sees them. Hess also has changed the in-house survey process, which she believes will further enable her to obtain more positive patient responses. In the past, the department used mail-back patient satisfaction surveys. "People who have a complaint are more likely to get the information back to you," she notes. By employing the patient service representatives to solicit responses while patients are in the ED, she says, she is not only able to hear the good news, but she is receiving much more input in general.

"Using the mail-back, method, for example, in October 2005, we had 21 the entire month," says Hess. "This month, we had 273." ■

CNE/CME instructions

Physicians and nurses participate in this CNE/CME program by reading the issue, using the references for research, and studying the questions. Participants should select what they believe to be the correct answers, then refer to the answer key to test their knowledge. To clarify confusion on any questions answered incorrectly, consult the source material. After completing the semester's activity, you must complete the evaluation form provided and return it in the reply envelope to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you. ■

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 *questions*

13. According to David Linkous, RN, MEd, which of the following effective responses to the mass shootings at Virginia Tech was *not* part of the original disaster plan?

A. Disaster carts that contained intravenous solution, bandages, and other general trauma supplies.
B. Extra meds — mostly antibiotics and rapid-sequence intubation drugs — brought to the nurses station from the pharmacy.
C. Color-coded triage of patients, conducted out in the field by the EMS.
D. Relocation of the emergency manager to the command center, where he could provide the ED with accurate and up-to-date information.

14. According to Marion C. Martin, RN, MSN, MBA, a patient safety culture was engendered in the ED with help of targeted presentations on safety in different specialties, facilitated by:

A. senior nurses.
B. ED physicians.
C. outside experts.
D. the ED manager.

COMING IN FUTURE MONTHS

■ California ED diversion project releases its findings

■ CMS guidance on conditions of participation: What it means to you

■ ED stops providing chronic pain care

■ Armed police officer is hired to patrol ED

15. The most sophisticated language translation software systems currently on the market can help ED providers communicate with non-English-speaking and hearing-impaired patients by offering language interpretation via:
A. printed questions and answers that appear on a laptop screen.
B. audio translations of questions and answers in several languages.
C. video clips that show interpreters signing the questions and answers.
D. All of the above

16. According to John Benanti, MD, FACEP, specialists can be enticed to take call in the ED by:
A. Offering them cash stipends of $1,000 or more.
B. Providing physician assistants to help care for patients before and after surgery.
C. Having hospitalists treat the medical needs of the patients, so the surgeons need only concern themselves with the procedures.
D. All of the above

17. According to Todd Taylor, MD, ED managers can most effectively improve the care of weekend heart attack victims by:
A. adding more nurses on the weekends.
B. moving EKG machines into the ED.
C. making a financial case for the institution of a 24/7 catheterization lab.
D. scheduling regular inservice sessions on best practices.

18. According to Becky Hess, RN, BSN, the one successful patient satisfaction initiative that required cooperation from other departments was:
A. setting a time limit of 15 minutes for bed placement.
B. conducting surveys on site, instead of mailing them out.
C. adopting a "pool-til-full" triage process.
D. adding patient service representatives in the ED.

CNE/CME answers

13. B; 14. A; 15. D; 16. D; 17. C; 18. A.