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EDs receive unexpected 'visitors': chemically contaminated patients

EDs quarantined for 24 hours following incident

It's enough of a challenge when an ED is alerted by its local EMS that victims of chemical contamination are on their way by ambulance. But when these patients arrive by car — unannounced — that brings your response to an entirely different level.

That's exactly what happened on Aug. 31 in several EDs in St. Louis, MO. Several people were sickened by exposure to a dangerous chemical that was spilled at a storage and mixing plant in East St. Louis, IL. They drove themselves to four St. Louis area EDs.

"We got three patients, and I believe we were the first to receive any of them," says **Patty Wors**, RN, BSN, director of the ED at St. Anthony's Medical Center. "They went to the triage desk, which is right where you walk in the door."

The sickest of them literally was blue, and all of them were covered with a white, powdery chemical, she said. "We did not know what had happened at the time, so we put the sickest one in the first room off triage, and the other two right next door," says Wors.

Massachusetts orders an end to emergency department diversions

The state of Massachusetts has ordered all hospitals to stop turning away ambulances when their emergency departments are overcrowded. According to officials at the state Department of Public Health, diversions will have to be discontinued as of Jan. 1, 2009. Under the new policy, hospitals will be allowed to close their EDs to ambulances only if they have a serious internal emergency such as a major fire, called a "code black."

In a letter sent to hospital executives this summer, **Paul Dreyer**, the Massachusetts director of healthcare safety and quality, noted that several national patient safety groups, along with the American College of Emergency Physicians, discourage the routine use of diversion to solve ED overcrowding. ■

Alan Martin, MD, the most senior ED physician present at SSM DePaul Health Center that night, says, "We had three individuals who were exposed to the chemical, which we later learned was nitro aniline, and who arrived in a private vehicle as opposed to an ambulance." The driver of the car came in and said he had sick people with him. "The staff went out, realized they were covered in a chemical and started decontamination right off the bat," says Martin.

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Editor: Steve Lewis (steve@wordmaninc.com).

Associate Publisher: Coles McKagen (404) 262-5420 (coles.mckagen@ahcmedia.com).

Senior Managing Editor: Joy Daughtery Dickinson (229) 551-9195 (joy.dickinson@ahcmedia.com).

Senior Production Editor: Nancy McCreary.

Editorial Questions

For questions or comments, call Joy Daughtery Dickinson, (229) 551-9195.

The ED at Barnes-Jewish Hospital was a little more fortunate, says **Keith Outlaw**, RN, assistant clinical manager for the ED. They were given advance warning from the local EMS, Outlaw says. "Our patient had come from home after showering a couple of times," he says.

Outlaw says his department already knew about the incident, because a message had come across their computers as part of a citywide incident alert system. "We were aware two other hospitals in the area had gotten patients, but we were not really expecting any," he says. "But then we got a call saying a patient was on the way with a 10-15 minute ETA."

Because of the different nature of the arrivals, the EDs had varied responses. At Barnes Jewish, for example, "We already knew what the chemical was, so we started pulling MSDS sheets [Material Safety Data Sheets] to learn the chemical base and proposed treatment, and we also started setting up for decontamination to make sure he was clean," says Outlaw.

The staff at St. Anthony's didn't learn the whole story until one of the patients identified the chemical. "As soon as we got the story, which was within 15 minutes, we had them in the 'decon' room, had them strip, and washed them down," says Wors.

At SSM DePaul, says Martin, "The staff recognized immediately the potential exposure risk for the department and proceeded to initiate decontamination procedures." The decontamination area is attached to the ED but has a separate entrance from the outside. He says. "The staff kept all three of them in the car until they got the decon room prepared," notes Martin.

St. Anthony's and SSM DePaul were ordered to be quarantined by the local hazardous materials (hazmat) organization.

Executive Summary

Just because you are presented with unexpected challenges doesn't mean you shouldn't be prepared. As indicated by the reactions of several St. Louis EDs to "walk-in" chemically contaminated patients, there are procedures you should have in place to ensure minimal exposure to other patients and staff.

- If the patients are covered with a powder or other unknown substance, begin decontamination procedures immediately, outside if possible.
- Always have gowns, masks, and gloves readily available in case they are needed on short notice.
- Have a designated area available as an alternative for treating emergent patients should your ED be quarantined.

"While we waited for official word as to whether the entire ED had to be decontaminated, as a precaution, everybody who had been admitted was washed down," Wors says. "Everyone who had been discharged was told to go home, take a shower, and wipe down all non-clothing items."

The hospital already had formed an incident command center once it was known there was a chemical exposure. All three exposed patients were admitted. The ED gave them the recommended antidote, Methylene blue intravenously, in the ED, and then discharged them, says Wors. The incident had started at about 3:30 that afternoon. "We were up and running 100% by that time the next day," Wors says.

The SSM Depaul ED also was closed for about 24 hours, Martin says. "The quarantine was activated shortly after the patients' arrival, in conjunction with our local hazmat," he says.

Anyone who was in the waiting room was decontaminated. As a precautionary measure, several members of the staff who were exposed also were decontaminated and given blood draws. According to their disaster plan, the ED was relocated to the surgical recovery room, where the staff were able to treat any emergent patients. All new stable patients were diverted. "The incident started at about 3 p.m., and by midnight we had the backup ED set up to treat walk-in or ambulance arrivals, and we were able to handle whatever came in," says Martin. **(For more on how the EDs responded to this incident, see the story, below.)** ■

Incentives can boost productivity, revenues

Proper documentation measures productivity

(Editor's note: This is the second in a three-part series on innovative approaches to documentation that can significantly enhance your department's revenues, without making any changes in patient flow and throughput processes. This article discusses how the use of incentives can improve documentation and increase revenues. The final installment will discuss excellence in coding and billing practices.)

There can be millions of dollars of unrealized revenues "left on the table" if your staff are not documenting properly, say experts. One effective strategy for optimizing those opportunities is to offer productivity incentives, says **James M. Fox**, MD, FACEP, vice president of Emergency Medicine

Disaster plan stands ED in good stead

Even though chemically contaminated patients arrived at the ED at SSM DePaul Health Center in St. Louis, MO, without warning on Aug. 31, "It all went according to our disaster plans," says **Alan Martin**, MD, an ED physician. "What we did well was early recognition of potential exposure, preventive safety measures, and communication between different agencies."

For example, patients who had been exposed to a dangerous chemical were moved immediately into the decontamination area. Their clothing was removed and bagged. They were decontaminated with soap and water; gowned, and brought into the negative pressure ventilation room. The first patient to walk in was the driver of the car, who said he had sick people with him. He was not among those initially exposed to the chemical. However, the driver theoretically had been exposed, so in consultation with the local hazardous materials organization, the ED was closed as a precaution to determine the potential health effects and to prevent other areas or people from being exposed, Martin explains.

The staff soon learned from one of the patients that the chemical was nitro aniline, so by accessing the Material Safety Data Sheets (MSDSs) on their computers, they learned its health effects and that it was absorbable through inhalation or skin exposure. "We were prepared for that because we had gloves, gowns, and masks available for our staff to prevent them from being exposed, and we initiated that as soon as we knew there had been chemical exposure — *before* we initiated decontamination," says Martin.

Nevertheless, there are some things for which a standard disaster plan cannot prepare you, says **Patty Wors**, RN, BSN, director of the ED at St. Anthony's Medical Center. St. Anthony's had received three walk-patients. "We've had many drills, and we had anthrax scare a month ago, where we had our decon tents up and ready to go, waiting on the 'patients,'" she recalls. "But we really hadn't had any real practice for someone just walking in."

Accordingly, Wors calls this "a great learning experience." She adds, "If I had had a forewarning, I could have stationed someone outside." ■

Executive Summary

Monitoring documentation procedures closely, and providing a financial incentive for your physicians to improve their documentation practices, literally can save your hospital hundreds of thousands of dollars. Here are some keys to establishing such a program:

- Have coders review charts, determine what the doctor should have documented, and how much money was "left on the table."
- Provide this data to your physicians on a monthly basis, and show them how they compare to the rest of the department.
- Set up a compensation structure in which the doctors receive not only a base hourly rate, but a percentage of what is collected.

Specialists, a staffing company for emergency physicians and extenders, and managing director for Midwest Emergency Services, a billing, coding, and practice management company, both in Fraser, MI.

"We always incentivize doctors to be [more] productive," says Fox, noting there are two primary ways to do that. One is to incentivize ED physicians to see more patients and perform more procedures. "The other way, which is perhaps more subtle but more important, is to show doctors that they need to document what they do," notes Fox.

It's the incomplete documentation by ED physicians "that is probably the biggest detriment to doctors actually garnering the monies they are due for the services they render," Fox asserts.

Robert B. Takla, MD, FACEP, vice chief — emergency services at St. John Hospital and Medical Center, Detroit, has seen this approach first-hand. "One institution transformed from a hospital employee model to a private physician group," he recalls. "Before, the doctors were not making much money, and the hospital was losing $300,000 annually to pay for doctors' services in the ED."

After the hospital outsourced its ED management to a private group, says Takla, the group started working with Fox and adopted his incentivized approach. The physicians are paid a base hourly rate, but they also receive a percentage of what is collected, he says. "For every bill under their PIN number, monies are accrued to that doc account," he explains. "So, by documenting

Sharing the numbers is a great motivator

It's relatively easy to convince ED doctors of the importance of documentation when you can back up your claims with hard data, notes **James M. Fox**, MD, FACEP, vice president of Emergency Medicine Specialists, a staffing company for emergency physicians and extenders, and managing director for Midwest Emergency Services, a billing, coding, and practice management company, both based in Fraser, MI.

"We started a few years ago with triage doctors, and a coding system that was able to generate deficiency levels," he recalls. "The coders can look at the chief complaint, examine the chart, and can determine what the doctor should have documented and what was left on the table."

So, for example, if a patient came in with chest pain and an EKG was ordered but not interpreted, the coder could see the doctor was deficient in interpretation. "We then provided feedback to the doctors on a monthly basis, to show how many deficiencies they had and the dollar value of those deficiencies," says Fox.

The information is very detailed and shows the number of shifts and patients seen. It lists and describes each deficiency and then shows the total number of dollars that were lost, he says. Then, says Fox, he compares the doctors' data to the rest of their colleagues. "That is very motivating for a doctor who does not want to be on the far left-hand side a bell-shaped curve," he says.

Robert B. Takla, MD, FACEP, vice chief — emergency services at St. John Hospital and Medical Center, Detroit, says, "I was able to take this type of information to five physicians at a hospital I staffed, and all of a sudden their eyes opened wide. They had never been told in the past how much money they were leaving behind, and it was their *own* money!"

Takla went a step further and hired an individual who had been doing secretarial work in the ED to contemporaneously look at the charts and provide feedback to the doctors in real time or within 24 hours. Takla says such an individual would be paid $30,000 to $40,000 a year, depending on where in the country your ED is located. That person brought deficiencies down to almost zero within two months, he says. "I'd say that was responsible for about 20% of the $3 million" that the hospital realized in increased revenue, Takla says. ■

Sources

For more information on improving documentation, contact:

- **James M. Fox**, MD, FACEP, Vice President, Emergency Medicine Specialists, Managing Director, Midwest Emergency Services, Fraser, MI. Phone: (586) 294-2700. E-mail: jmfoxmd@midwestemergencyservices.com.
- **Robert B. Takla**, MD, FACEP, Vice Chief — Emergency Services, St. John Hospital and Medical Center, Detroit. Phone: (313) 343-7071. E-mail: Robert.Takla@stjohn.org.

and optimizing revenue, more money comes to them."

The physicians are definitely not complaining. "I've seen a quarterly bonus check of $50,000 go to one physician," Takla says. "Those bonuses range anywhere from $10,000 and higher."

In addition, the hospital has increased revenues by $3 million because of improvement in productivity and documentation, he notes. **(Fore more details, see "Documentation tool can boost bottom line," *ED Management*, September 2008, p. 103.)**

Such an approach fosters a change in attitude that patients no doubt appreciate as well. "At Robert's shop, he told me doctors would actually walk out into the waiting room and bring the patients in," Fox shares.

Before the change, says Takla, "What you'd hear more often is 'Don't bring any patients back until I tell you to.'" **(For more details, See "Documentation tool can boost bottom line," ED Management, September 2008, p. 103.)** ■

New discharge form keeps satisfaction high

Helps with instructions, resources at home

For the past two years, the ED at Avera Weskota Medical Center, a small, rural critical-access hospital in Wessington Springs, SD, has been using a new "Emergency Services Aftercare" instruction form to help patients remember vital information about the care they received and instructions to follow once they get home. It might be no coincidence that in 2007, the hospital received The Press Ganey Summit Award, which is based on a department ranking in the 95th percentile or above for at least three years.

In fact, the ED received a ranking of the 99th percentile for the period between Jan. 1, 2007, and June 30, 2007. **[A copy of the form is available**

Incentive plan works better with ED group

An incentive program to reward thorough documentation works dramatically better when the ED is staffed by a private physician group, says **Robert B. Takla**, MD, FACEP, vice chief — emergency services at St. John Hospital and Medical Center, Detroit.

"My experience is that it works phenomenally better when you have a physician group," Takla says. "The hospital employee model does not lend itself to this very well." However, since slightly more than half of the hospitals in the United States are staffed with that model, there are many EDs where such an approach could be adopted.

It is not a "hard sell" at all, according to J**ames M. Fox**, MD, FACEP, vice president of Emergency Medicine Specialists, a staffing company for emergency physicians and extenders, and managing director for Midwest Emergency Services, a billing, coding, and practice management company, both based in Fraser, MI. "The first thing we do is go in and audit two days of their business, see how much they collect with the staff that is in place, what they need to collect, and then based on what we think our group would do with documentation, coding, and billing, we project what the doctors would make compared to what they are currently being paid," Fox explains. "I've yet to be involved in this sort of discussion where the doctors currently working at the site *don't* want to make more money than they are currently making."

In addition to the increased revenues, Takla says the incentive approach also can help eliminate certain resentments that have developed among the staff. "It serves to reduce any potential animosity," he says. "If I work my tail off and see three patients per hour and my colleague is sipping coffee and sees one patient an hour, I don't mind because my paycheck will reflect that."

Fox describes his firm as "unabashed capitalists," adding, "We think that works." ■

Executive Summary

Discharge instruction forms, and the way they are presented, can make a significant impression on patients. This lesson has helped Avera Weskota Medical Center in Wessington Springs, SD, earn the prestigious Summit Ward from Press Ganey. Here are strategies they used:

- Include practical information, such as when the patient can return to work or school, as well as medications that must be taken.
- Include a visual cue for the caregivers to remind the patient to complete the satisfaction survey.
- Use colorful paper, and include a practical, re-useable binder that has your hospital's logo on it.

with the online version of *ED Management* at www.ahcmedia.com. For assistance, contact customer service at customerservice@ahcmedia.com or (800) 688-2421.]

The new form addresses one of the most pressing issues in emergency medicine today: poor communications upon discharge. In fact, a recent study by the American College of Emergency Physicians found that about 75% of discharged ED patients failed to understand their discharge instructions. **(For more details see "Majority of emergency patients don't understand discharge instructions," *ED Management*, September 2008, p. 97.)**

"At the end of a visit the patient is bombarded with all kinds of information, and once they get home they forget it," notes **Julie Schultz**, LPN, quality improvement coordinator at Weskota. "We developed the form and instructions we want the patient to follow, which they and their

Award-winning ED remembers the basics

The ED at Avera Weskota Medical Center in Wessington Springs, SD, which won the Press Ganey Summit Award in 2007 for ongoing excellence in patient satisfaction, might have gained recognition for innovative strategies such as a patient-friendly discharge form, but that doesn't mean it has lost sight of good basic patient satisfaction practices.

For example, upon arrival in the ED, patients are promptly acknowledged and accompanied to the treatment area. Physical assessment and notification of the on-call medical provider are completed before the admitting paperwork is initiated, and patients typically have their first face-to-face encounter with a medical provider within 13 minutes. Patients are notified that the providers have been contacted and that they can expect only a short delay. ■

Sources

For more information on patient-friendly documentation forms, contact:

- **JoAnn Hettinger**, RN, Director of Patient Care Services, or **Julie Schultz**, LPN, Quality Improvement Coordinator, Avera Weskota Medical Center, Wessington Springs, SD. Phone: (605) 538-1201.

Reminders help build long-term loyalty

When patients are discharged from the ED at Avera Weskota Medical Center in Wessington Springs, SD, the discharge package they receive is designed to create ongoing loyalty to the facility and ensure the staff are doing their part in enhancing patient satisfaction.

The documents themselves are held together with a brightly colored, re-usable magnetic clip bearing the hospital's name and logo. "We wanted to boost the return rate of our ED satisfaction survey, and it's a visual cue for the nurse to remind the patient to fill out the satisfaction survey," explains **Julie Schultz**, LPN, quality improvement coordinator.

A colorful flier in the package says, 'Please fill out the survey when it comes in the mail.' "You can hang it on the refrigerator [using the magnetic clip] as a reminder," says Schultz, noting that the rate of return has increased from under 40% to about 50%.

The re-usable clips also help the hospital retain 'top-of-mind' awareness among patients. "I've had some of my family members come in here for one thing or another, and I have as well, and we use them to put things on the refrigerator that we need to remember, like important school events for our children," says **JoAnn Hettinger**, RN, director of patient care services. ■

spouse can refer to once they get home." The instructions include what patients should and should not do, including when to return to work or school. The form also documents the education that has been given to the patient, the medications they must continue to take, and if they need to have a follow-up visit, she says. "If one of our clinics happens to be open at the time, we will set the appointment up for them," Schultz adds.

The benefit of the form is the fact the patients get information they can refer to that they may have forgotten, says **JoAnn Hettinger**, RN, director of patient care services. "You can give them verbal instructions, but the visual form is a lot better," Hettinger says.

Previously, patients simply received oral instructions or staff might have written the instructions on a piece of paper, but it was not consistent, says Schultz. Now, the patients and nurses sign the form to indicate it has been reviewed. "Many times the provider will personally review it with the patient [rather than the discharge nurse], adds Schultz. ■

'Smart card' speeds triage, boosts safety

Swipe of card provides essential patient information

ED managers are not often thought of as inventors, but **David Soria**, MD, chief of emergency medicine at Wellington (FL) Regional Medical Center, has created a device that has helped his department knock an average of 2-3 minutes off its triage time, which was already an impressive 10-15 minutes.

It's called a "smart card," and it works like this: Patients who sign up for the card complete an online or paper questionnaire, which asks for information such as date of birth, current medications and dosages, allergies, medical and immunization history, family history, the name of the patient's primary physician, advance directives, and organ donation preferences.

When these patients present to the ED, they go to a kiosk, touch the screen once, and swipe the card, at which point the information is pulled from a database inside the hospital. That information is sent via computer to the triage nurse. A moment later, a triage nurse calls their names, confirms their identities and their medical histories, and starts taking vitals.

Many patients at Wellington are senior citizens and are on 10 or more medications, notes Soria. "Imagine the time it would take to enter that information, even if that person typed well." Soria estimates it could take 7-10 minutes to type in that information.

Executive Summary

An internally developed 'smart card' and a kiosk equipped with an electronic reader have helped Wellington (FL) Regional Medical Center speed up its triage process considerably. The new technology is extremely popular with the staff, as well as with the patients. Here are some of its benefits:

- Patients who have the card don't need to provide a detailed history every time they visit the ED.
- Nurses don't have to type in the patient's medical information. It automatically "populates" their computer screen.
- Security is maintained, because the information is stored in a database, and not on the card.

JoAnn Franklin, RN, director of emergency services, says the card is also an important patient safety tool. "When an elderly patient comes in who is unresponsive, if they have a smart card in their wallet, we will slide it through and all their information comes through," she explains. "This way, we know what types of meds they are on, if they have a pacemaker, and so on."

If the card is lost or stolen, there are no privacy concerns because all it contains is a 12-digit number; the actual medical information is stored in the hospital database, Soria adds.

The nurses "love it," says Franklin. "It saves so much time when you have a lot of patients coming in and they all want to see the docs right away," she says.

When patients arrive at the ED with an extensive list of meds, the nurses create a card for them and explain exactly what it is and how to use it in the future.

The nursing staff also had to be educated about the new card, says Franklin. All nurses were given their own smart cards. They put their information on it and learned how to log on, Franklin explains. "Then, they would pretend to be the patient and put in any requested information," she says. An added benefit is that the nurses now have cards in the event they become patients, Franklin says.

ED tool accomplishes many goals

When Soria came up with the idea for a patient "smart card" about two years ago, he saw the opportunity to meet a number of needs.

"I wanted to create something that would not only eliminate inaccuracies and the inconvenience of going over meds each and every time you go to the ED, but eliminate the inefficiencies caused by patients not

Sources and Resource

For more information on ED patient smart cards, contact:

- **JoAnn Franklin**, RN, Director of Emergency Services, or **David Soria**, MD, Chief of Emergency Medicine, Wellington (FL) Regional Medical Center. Phone: (561) 798-8535.

For more information on how to obtain smart cards for your ED, contact: Shaun Thompson, MedX Healthcare, West Palm Beach, FL. E-mail: sthompson@medxhealthcare.com.

remembering all the information," he explains. "In addition, I wanted to create a loyalty card, so if patients needed emergency services, they would repeatedly come back to the same facility because we have the technology that allows them to provide information without them having to go into it verbally."

The ED already had computer technology for bed tracking and for triage, and it is in development with an electronic medical record and computerized physician order entry, all designed by MedX Healthcare of West Palm Beach, FL. There already were kiosks with touch screens in the ED for self-registration, so the only hardware that had to be added was the card and a magnetic reader. MedX used items such as touch screens from Planar Systems, Inc., of Beaverton, OR; PCs from Dell Computers, of Round Rock, TX; and the readers from Magtek, or Carson, CA.

"I had retained MedX Healthcare to work on my software, so I then had them develop the 'mag' readers, the magnetic swipe card and the database that holds the information," Soria recalls. MedX completed the assignment in a few months, a one-month beta test was conducted, and the system was implemented in November 2007.

The cost of the software development — $75,000 — was borne by Soria's group, says Soria, adding that MedX has a pricing sheet for implementation in other EDs. **(For more information, see resource box, above.)**

Soria says that to his knowledge, there is no competition for the smart card. "There are cards out there that have chips that can plug into a system and allow the patient to carry all their medical information with them, but this is the only one that comes in a 'mag' strip reader," says Soria, noting that since there is no actual medical information on the card itself, there are no privacy concerns should it be lost or stolen. ■

Aggressive marketing introduces technology

David Soria, MD, chief of emergency medicine at Wellington (FL) Regional Medical Center, says his department and hospital were extremely proactive in educating the community about its new "smart cards" for ED triage.

"We had health fairs where they were distributed, we did lectures in the community, and I've even done a story on local TV," Soria says.

The marketing campaign was aggressive, he continues. For example, the smart card was featured on the cover of a quarterly newsletter sent to 250,000 members of the community. The application, developed by the marketing department with input from the medical staff, was inside. Also, at press time, it was featured on the front page of the hospital's web site, www.wellingtonregional.com. Benefits emphasized included quick access to vital health information, fewer delays in treatment, and preventing medical errors.

JoAnn Franklin, RN, director of emergency services, says, "Our marketing department gets lots of calls from patients about how happy they are."

ACEP: Diagnose, treat TIAs more rapidly

Authors suggest change to TIA definition

Citing a growing body of evidence showing that patients who have had a transient ischemic attack (TIA) are at a significant risk of having a stroke within 48 hours, authors of a four-article supplement in the latest edition of the *Annals of Emergency Medicine* have underscored the need to diagnose and treat TIA much more quickly than previously believed.[1-4]

"There are about 700,000 to 800,000 strokes a year in America, and it is a leading cause of disability," notes **Andy Jagoda**, MD, FACEP, editor of the supplement. Jagoda is professor and vice chair of emergency medicine at Mount Sinai School of Medicine and medical director of the ED at Mount Sinai Medical Center, both in New York City. In patients who have a TIA, 10% are going to have a stroke within three months, and 5% are going to have one within 48 hours of the TIA, she

Executive Summary

New information and technology have become available that can significantly impact the diagnosis and treatment of transient ischemic attacks (TIAs). As a result, the American College of Emergency Physicians has published a special supplement in the *Annals of Emergency Medicine*. Here are some of the recommended changes:

- Change the definition of a TIA from an event that lasts less than 24 hours to an event lasting less than one hour.
- Don't rely on outpatient follow-up to do all the necessary diagnostic tests in a timely manner. Have the patient admitted.
- Review and revise your protocols as necessary in light of the latest evidence-based practices.

Sources

For more information on diagnosing and treating transient ischemic attacks, contact:

- **Andy Jagoda**, MD, FACEP, Professor, Vice Chair of Emergency Medicine, Mount Sinai School of Medicine, ED Medical Director, Mount Sinai Medical Center, New York City. Phone: (212) 241-2987.
- **Mark Melrose**, DO, FACEP, ED Director, Mountainside Hospital, Montclair, NJ. Phone: (917) 887-99864.

says. "Therefore, when presented with patient who has a TIA, there is an urgency — no, an emergency — to initiate an evaluation to find the reversible causes of their TIA and prevention strategies before there is a recurrent event or stroke," Jagoda says.

Mark Melrose, DO, FACEP, director of the ED at Mountainside Hospital in Montclair, NJ, agrees. "The incidence of stroke is so great in the weeks and months following a TIA that it's important for the medical professional to know how to go about evaluating and treating patients with TIA," he says.

Accordingly, the authors recommend that the definition of a TIA be changed from an event that lasts less than 24 hours to an event lasting less than one hour. They argue that symptoms lasting less than one hour still can indicate brain injury and a heightened risk of further neurological or cardiovascular events going forward. "The definition really has to change because our ability to detect permanent damage has become better," notes Melrose. "If symptoms last up to 24 hours, they might not show on a CAT scan, but now

Experts on TIA make case for hospitalization

In a recent supplement on transient ischemic attacks (TIA) in the *Annals of Emergency Medicine,* one of the key points raised by the authors was the issue of hospitalization.

"The sense of urgency [about hospitalization] has changed," says **Andy Jagoda**, MD, FACEP, editor of the supplement. Jagoda is professor and vice chair of emergency medicine at Mount Sinai School of Medicine and medical director of the ED at Mount Sinai Medical Center, both in New York City. "Until 2000, the standard of care was to send the patient home to have an outpatient workup, which did not happen in an expedited way," Jagoda says. He recommends "perhaps creating facilitated protocols utilizing observation medicine, to include a complete diagnostic workup within 12-24 hours." Placing a patient in the hospital proper, he says, is not as important as placing them "in a place that facilitates diagnostics."

The ED manager, he says, needs to look at the community he or she is serving, the volume in the ED, and perform a cost analysis of inpatient vs. observation (obs) medicine. "If a patient is being admitted for less than 24 hours, there can be an argument that it is more cost-effective and there is less chance of denial for reimbursement if the patient goes into obs, but every hospital has to do its own analysis of that," says Jagoda.

Mark Melrose, DO, FACEP, director of the ED at Mountainside Hospital in Montclair, NJ, agrees. "Once the patient is out of the hospital, things do not happen so easily in terms of approvals and pre-certifications," he notes. "The risk of having a stroke is so high in the two months following the TIA that I think it would be pennywise and pound foolish not to get all the stuff done in a day and a half and put the patient on some recommended therapy." ■

we have more advanced technology like the MRI." If symptoms resolve in less than an hour, he notes, even an MRI probably would not help, "but if they last over an hour, chances are good."

Jagoda adds, "The MRI's definition is much more sensitive in picking up subtle abnormalities, and this will end up pushing our radiology and neurology colleagues to work with us on protocols for facilitated MRI." **(For more specifics on treating TIAs, see the stories on p. 117 and p. 118.)**

References

1. Cucchiare B, Ross M. Transient ischemic attack: risk stratification and treatment. *Ann Emerg Med* 2008; 52:S27-S39.
2. Jagoda A, Chan Y-F Y. Transient ischemic attack overview: defining the challenges for improving outcomes. *Ann Emerg Med* 2008; 52:S3-S6.
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Moving admitted patients out of ED increases profits

$174 addional profit per day from ED admits

Moving admitted patients out of the ED and into inpatient beds reduces overcrowding more than adding beds to the department does, and -- in one hospital at least -- brings in more profits, according to two studies published online in advance of the October 2008 issue of *Annals of Emergency Medicine*.[1-2]

In one study, researchers created a computer simulation model that assessed four scenarios:

- a 23-bed ED with one admitted patient departing every 20 minutes;
- a 23-bed ED with one admitted patient departing every 15 minutes;
- a 28-bed ED with one admitted patient departing every 20 minutes;
- a 28-bed ED with one patient departing every 15 minutes.[1]

Increasing the number of beds without increasing the rate at which patients left the ED resulted in an

Educate your staff, update your protocols

In response to the new diagnosis and treatment recommendations in a recent supplement on transient ischemic attacks (TIA) in the *Annals of Emergency Medicine,* experts say that ED managers should take several steps to ensure their staff and department processes represent current best practices.

"The challenge for ED management is to educate doctors and nurses as to whatever the new current thinking is for *any* disease," says **Mark Melrose**, DO, FACEP, director of the ED at Mountainside Hospital in Montclair, NJ. How does Melrose suggest addressing the new realities of TIA? "I might electronically forward a copy of the articles or portions of the articles to doctors and nurses, and get with neurologists in the form of grand rounds," he recommends.

Work with the nurses and nurse manager to look at triage protocols, advises **Andy Jagoda**, MD, FACEP, editor of the supplement, professor and vice chair of emergency medicine at Mount Sinai School of Medicine, and medical director of the ED at Mount Sinai Medical Center, both in New York City. "For example, a patient who has a transient event and returns to baseline should still be considered at risk," Jagoda says. "They should be put in an area of expedited evaluation."

Second, he says, TIA patients should be admitted. "If not, you must document very clearly why not," Jagoda says. "From a risk management point of view, there needs to be a clear clinical decision, making notes that represent the thought process of why they are not being admitted."

Third, he says, patients with TIAs need EKGs and cardiac monitors as early as possible because "atrial fibrillation is an identifiable and treatable etiology for TIA and a definite risk factor for stroke." Finally, Jagoda advises, "Carotid and vertebral artery dissections are identified causes for TIAs and stroke, and therefore considerations should be given to imaging not just the brain, but also the carotid and vertebral arteries." This imaging also is a risk management consideration. "If you look at missed diagnoses [of TIA], they can be linked to failure to consider, especially in young patients," Jagoda warns. ■

increased length of stay of seven minutes per patient, while increasing the departure rate resulted in a decreased length of stay of 22 minutes per patient.

In the second study, assessing all admissions to one hospital for a three-year period, researchers found that patients admitted to the hospital from the ED netted a median profit of $769 per day versus $595 per day for non-ED admissions.[2]

References

1. Khare RK, Powell ES, Reinhardt G, et al. Adding more beds to the emergency department or reducing admitted patient boarding times: Which has a more significant influence on emergency department congestion? *Annals Emerg Med* 2008. DOI: 10.1016/j.annemergmed.2008.07.009.
2. Henneman PL, Lemanski M, Smithline HA, et al. Emergency department admissions are more profitable than non-emergency department admissions. *Annals Emerg Med* 2008. DOI: 10.1016/j.annemergmed.2008.07.016. ■

CNE/CME *questions*

1. According to Alan Martin, MD, an ED physician at SSM DePaul Health Center, his staff recently put several walk-in patients into the decontamination facility:
   A. Once the patients told them that they had been exposed to a chemical.
   B. After conducting their initial assessment.
   C. As soon as they saw that they were covered with an unknown substance.
   D. When the local hazardous materials (hazmat) organization contacted them.

2. According to James M. Fox, MD, FACEP, managing director for Midwest Emergency Services, when employing an incentive program to enhance documentation procedures, coders should provide ED physicians with:
   A. Information about the number of deficiencies they have had each month.
   B. Information about how much money their deficiencies have cost the hospital.
   C. Data that compares their performance to that of their ED colleagues.
   D. All of the above.

CNE/CME instructions

Physicians and nurses participate in this continuing medical education/continuing education program by reading the articles, using the provided references for further research, and studying the questions at the end of the articles.

Participants should select what they believe to be the correct answers and then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material.

After completing the semester's activity with the March 2009 issue, you must complete the evaluation form provided in that issue and return it in the reply envelope provided in order to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you.

For information on the CE/CME program, contact customer service at (800) 688-2421 or customerservice@ahcmedia.com.

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. ■

3. According to Julie Schultz, LPN, quality improvement coordinator at Avera Weskota Medical Center, the colorful flier included in the emergency department discharge package performs the following function:
   A. It thanks the patient for choosing the hospital.
   B. It serves as a visual cue for the nurses to remind the patient to fill out the satisfaction survey.
   C. It contains the date and time of the patient's follow-up appointment.
   D. It includes a list of the hospital's other departments and services.

4. JoAnn Franklin, RN, director of emergency services at Wellington Regional Medical Center, helped prepare her nursing staff for the introduction of triage smart cards by:

COMING IN FUTURE MONTHS

■ Doc orders isolation, but patient remains in the ED

■ Statewide web system alerts hospitals to disasters

■ How to achieve excellence in billing and coding

■ New tracking system is already paying its way

A. Having them create and use their own cards in a mock exercise.
B. Conducting a site visit at a facility that was already using them.
C. Conducting an inservice.
D. Providing them with a detailed brochure from the manufacturer.

5. According to Andy Jagoda, MD, FACEP, medical director of the ED at Mount Sinai Medical Center, in light of the latest information on transient ischemic attacks (TIAs), ED policies and procedures should include the following:
A. TIA patients should be admitted.
B. TIA patients should receive EKGs and cardiac monitors as soon as possible.
C. Consideration should be given not just to imaging the brain, but the carotid and vertebral arteries.
D. All of the above.

6. David Soria, MD, chief of emergency medicine at Wellington Regional Medical Center, hoped to reap several potential benefits by creating a 'smart card' for triage registration. Which of the following was *not* among them?
A. Eliminating ED overcrowding.
B. Eliminating inaccuracies in registration.
C. Avoiding the need to go over all of the patient's medications every time they came to the ED.
D. Creating a "loyalty card" so that patients who needed emergency treatment in the future would once again choose Wellington Regional.

CNE/CME answers

1. C; 2. D; 3. B; 4. A; 5. D; 6. A.

General Instructions

____ Keep dressing clean and dry
____ Keep injured part elevated for _____days
____ Ice (intermittently) to injured area for ____ hours
____ No weight bearing
____ Re-wrap ACE bandage if too loose or too tight
____ Crutches as needed
____ Signs of decreased circulation:
Pain
Numbness
Coolness
Swelling
Tingling
Discoloration
____ Take prescription(s) as directed
____ Encourage fluids without alcohol or caffeine
____ Clear liquid diet
(Gatorade, Pedialyte, Noncaffeinated pop, etc.)
____ Ibuprofen / Tylenol / Aspirin for pain or fever
Dosage _____
----**Signs of possible infection:** If any of the following signs appear, contact your physician immediately:

Redness	Heat	Fever
Swelling	Red Streaks	Drainage
Increased Pain	Tender lumps in groin or under arm	

____ You may return to school / work
____ You may **NOT** return to school / work until: _____
____ **Ni driving or hazardous activity for** _____

INSTRUCTION SHEETS GIVEN:

____ Cast/Sprain ____Animal Bites
____ RICES ____Head injury
____ Gastroenteritis ____IM / IV
____ **Pain Medication Information**
____ Antibiotic ____Pain
____ Other: _____

FOLLOW UP APPOINTMENT WITH:

Dr. _____
On date _____ at _____

CLINIC NOT NOTIFIED

Call Dr. _____ at _____
For follow up appointment _____
____As needed
FOR:
____Exam & Re-evaluation
____Wound evaluation
____Removal of sutures

OTHER INSTRUCTIONS:

_____
_____
_____
_____
_____
Attending provider: _____

I understand that the treatment I received in the Emergency Department was rendered on an emergency basis only and that follow-up treatment may be necessary. Carefully follow the instructions on this sheet.

IF MY CONDITION WORSENS, I WILL CONTACT MY DOCTOR OR RETURN TO THE HOSPITAL.
I have received aftercare instructions and have verbalized understanding.

_____ _____
Patient or Relative to Patient Nurse Signature

Source: Avera Weskota Medical Center, Wessington Springs, SD.