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Public health experts urge U.S. hospitals to be prepared as Ebola outbreak accelerates

Hospitals question whether standard infection control practices are enough

There has yet to be a single patient diagnosed with Ebola virus disease (EVD) in the United States, but current trends regarding the

latest outbreak of EVD in West Africa have public health authorities here concerned. By the end of August, the World Health Organization (WHO)

EXECUTIVE SUMMARY

With the outbreak of Ebola virus disease (EVD) accelerating in West Africa, public health authorities are urging frontline providers in the United States to be vigilant in questioning patients who present with a suspected infectious disease, and in adhering to infection control practices. Recent travel to West Africa and contact with others who may have been exposed to EVD are key points that need to be covered at triage, say experts. The World Health Organization (WHO) indicates that mortality from the latest outbreak is 55%, although it is as high as 75% in Guinea.

- Health care workers are particularly vulnerable to EVD, with WHO noting that more than 250 workers in West Africa have contracted EVD and at least 120 have died from the disease.
- Experts say that one of the greatest times of risk for health care workers is while a patient is at triage because he or she has not yet been placed in isolation precautions.
- The CDC is recommending that hospitals rigorously apply standard infection control policies at a minimum, and that extra protective equipment may be required when there are body fluids in the patient environment.
- Hospitals in 27 states have reported dozens of suspected cases of EVD to the CDC, but at press time, none had yet tested positive.

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said the epidemic was accelerating, and that as many as 20,000 people could be infected with EVD before the epidemic is brought under control. Also concerning is the fact that mortality from the current outbreak is about 55%, although it is as high as 75% in Guinea, according to WHO.

Already, there have been more than 3,000 confirmed cases of EVD and more than 1,500 deaths, but WHO suggests the actual numbers may be much higher. Further, while the disease is currently concentrated in Guinea, Liberia, Sierra Leone, and Nigeria, there is clearly a risk that the disease could spread. With international travel to and from West Africa, people who have been exposed to the virus could bring the disease to other countries, including the United States. Consequently, public health authorities here are urging hospitals to be prepared.

It is not just a matter of protecting patients from the deadly infection. Health care workers are particularly vulnerable to EVD. More than 250 health care workers in West Africa have contracted the virus and 120 have died of the disease, according to WHO. The agency states that many of these victims contracted EVD while caring for patients without taking proper infection control precautions. In some instances, the health care workers may not have realized that the patients they were caring for had EVD because this is the first time an EVD outbreak has occurred in this region of Africa.

Ask more questions

To make sure a case does not go unidentified in the United States, the Centers for Disease Control

(CDC) in Atlanta, GA, recommends that frontline health care personnel familiarize themselves with the case definitions for EVD and take steps to rule out the diagnosis in patients who present with symptoms of infectious disease.

“One of the greatest times of risk for health care workers is before they have identified a case because at this point the patient has not been placed in isolation precautions,” explains **David Kuhar**, MD, medical officer, Division of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases at the CDC, and the health care and worker safety team lead for the CDC's Ebola response. “So I think it is really important to elicit travel history during the triage process. Find out if, in the last 21 days, the patient has traveled to one of the affected areas. That can be critical to identifying a case.”

Kuhar adds that it is also important for health care personnel to realize that they need to ask more questions about symptoms and potential contacts with others who may have contracted EVD. Answers to these questions can prompt medical personnel to rapidly place patients under isolation precautions until testing rules out an EVD diagnosis.

Many of the symptoms of EVD are also typical of other infectious diseases. The CDC notes that these generally include fever, severe headache, muscle pain, weakness, diarrhea, and vomiting. Patients may also report stomach pain and a lack of appetite. And some patients may develop a rash that is usually on their face, neck, trunk, or arms. Experts say symptoms of EVD typically begin 8 to 10 days after exposure.

Take precautions

There is no question that another reason why EVD is getting added attention in the United States is because for the first time, patients have actually been treated for the condition here. Kent Brantly, MD, and Nancy Writebol, both missionaries who were infected with EVD while working in Liberia, were evacuated from the country in early August through the use of a plane that was equipped with an isolation tent. In separate flights, the patients were transported to Emory University Hospital in Atlanta, GA, where they were placed in a specialized isolation unit.

Both patients have since recovered from the disease. However, the extreme precautions that were taken with these patients have prompted some hospitals to question whether the CDC's standard recommendations for infection control go far enough toward protecting frontline providers against the risk of contracting EVD. As millions viewed the arrival of these patients on television, both the patients and the health care workers assisting them were completely covered in high-tech clothing. Given the way these cases were handled at Emory, other hospitals are considering the purchase of such equipment for their own emergency personnel.

"Our message is that, at a minimum, we expect health care workers to wear a gown, gloves, eye protection, and a face mask," says Kuhar. "But we are really trying to emphasize that [hospitals] should consider additional equipment, especially in certain situations such as when there is a lot of body fluids in the patient environment."

In such instances, health care

workers will need to protect their shoes and their legs as well, notes Kuhar. "While we are not too prescriptive on exactly what brand of equipment hospitals need to purchase, or whether they need to obtain multi-piece or a single-piece [protective clothing] to cover the lower or upper body, the emphasis here is on insuring that health care workers don't come into contact with blood or other body fluids," he explains.

Step up surveillance

As the medical director for Atlanta Fire Rescue, a department that covers operations in the city as well as at Hartsfield-Jackson Atlanta International Airport, **James Augustine**, MD, has been working to ensure that personnel are prepared to deal with a suspected EVD case. "Since we have outbreaks across the planet, our personnel have to be prepared to deal with them," he explains. "We have a quarantine station at the airport that is an office of the CDC and we work carefully with the CDC when international patients come in."

Augustine, who is also the director of clinical operations for EMP Management in Canton, OH, observes that infection control procedures have been evolving since the SARS (severe acute respiratory syndrome) epidemic in 2004, and the strengthened procedures should serve EDs during the current outbreak as well. "Whenever patients are greeted into the ED, whether they are coming by ambulance or they walk in the door, staff need to question them about whether they are a risk for any infectious diseases that are of particular concern, including TB [tuberculosis], MERS [Middle East

Respiratory Syndrome], or Ebola," he explains.

In a case in which an infectious disease is suspected, both the patient and providers need to be masked, and a special negative pressure room must be prepared where the patient can be isolated, says Augustine. However, that doesn't mean that hospitals shouldn't take extra precautions.

"What we have seen in the media are very high-level precautions against Ebola," he says. "We are aware that at this point in the outbreak of Ebola that we are not positive about the way it is transmitted, so it is appropriate for emergency providers, including physicians and nurses, to take what they feel are necessary precautions. And these may extend beyond what the CDC currently recommends."

Hospitals that decide to equip their emergency staff with added protective clothing or equipment should also understand that there may be added risks of exposure associated with such gear if it is not handled appropriately. The CDC has published guidance on the specific sequence of steps that should be followed when putting on and removing protective equipment. (*See p. 112.*)

Stay tuned for added guidance

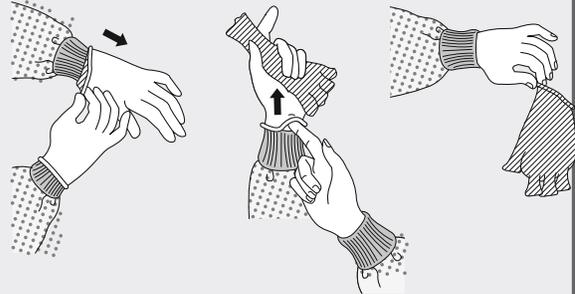
While Brantly and Writebol are the first patients to be treated for EVD in this country, they did not contract the disease here. Nonetheless, with a quickly spreading epidemic and a constant flow of international travel to the United States, frontline personnel need to be ready to handle a suspected case. And there is ample evidence that hospitals are stepping up their surveillance efforts.

SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Except for respirator, remove PPE at doorway or in anteroom. Remove respirator after leaving patient room and closing door.

1. GLOVES

- Outside of gloves is contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glovet
- Discard gloves in waste container



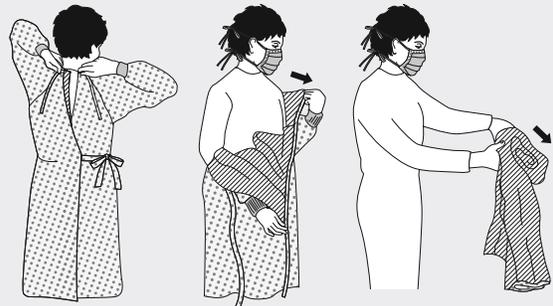
2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield is contaminated!
- To remove, handle by head band or ear pieces
- Place in designated receptacle for reprocessing or in waste container



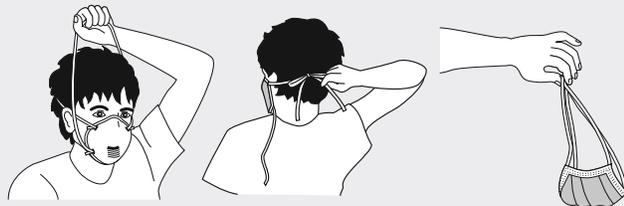
3. GOWN

- Gown front and sleeves are contaminated!
- Unfasten ties
- Pull away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard



4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated – DO NOT TOUCH!
- Grasp bottom, then top ties or elastics and remove
- Discard in waste container



**PERFORM HAND HYGIENE BETWEEN STEPS
IF HANDS BECOME CONTAMINATED AND
IMMEDIATELY AFTER REMOVING ALL PPE**



CS250672-A

By the end of August, the CDC had received reports of dozens of suspected EVD cases from hospitals in 27 states. Fifty-eight of these cases were ruled out after hospital officials spoke with the CDC about the specifics of the suspected exposures and the patient symptoms. However, blood samples from 10 patients were forwarded to the CDC for testing. At press time, seven of these tests had come back negative for EVD, and the results for the remaining three were not yet available.

Hospitals can anticipate further EVD-related guidance from the CDC in the coming weeks, advises Kuhar.

This will include recommendations that will home in on cleaning, the handling of laundry, and procedures for dealing with waste. There will also be statements coming out that deal with the safe handling of human remains that are infected with EVD. “We have to be ready,” he says.

To stay abreast of updates on the outbreak and to access key information links for health care providers, visit the CDC’s centralized web resource on EVD at <http://www.cdc.gov/vhf/ebola/>. ■

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Improved awareness, better screening needed to identify delirium patients who present to the ED

Researchers: Two-step screening process shows promise for improving diagnosis

Delirium is a common geriatric syndrome, but the diagnosis is often missed by emergency providers. Experts estimate that while the syndrome is present in 7-10% of older patients who present to the ED, it is only identified in a small percentage of these cases,¹ and the consequences of a missed diagnosis can be severe.

“Delirium frequently goes unrecognized, and it is a condition that is costly, it causes caregivers to stress, and, ultimately, from a wealth of resources we have seen that delirium places patients at higher risk of institutionalization, readmission, and death,” explains **Michael LaMantia**, MD, MPH, a geriatrician at Indiana University’s Center for Aging Research in Indianapolis, IN, and the lead author of a recent review of instruments used to screen for

delirium in the ED.² “We are looking at a three-fold change in the risk of mortality at six months if delirium is unrecognized in a patient who is discharged home, so that is one of the large reasons why I think this issue bears further attention.”

Improve knowledge, awareness

Part of the problem is that there is a lack of provider awareness about how delirium typically presents, according to **Jin Han**, MD, MSc, an associate professor in the Department of Emergency Medicine at Vanderbilt University Medical Center in Nashville, TN, who has conducted numerous studies on delirium in the emergency setting. “Many clinicians and health care providers, not just

those in the ED, think of delirium as this agitated state where patients are ripping out their IVs, blood pressure cuffs, and whatnot, but [these symptoms] actually only occur in the minority of cases,” explains Han.

In fact, most cases of delirium involve what is called the hypoactive subtype, says Han. “These are patients who are more sedated, maybe somnambulant, even depressed looking,” he explains. “A lot of times, patients with hypoactive delirium can be mistaken as being depressed, and, as a result, this is a subtype that is frequently missed by clinicians.”

In research he has conducted, Han has found that emergency providers miss the diagnosis as often as 76% of the time, resulting in a lost opportunity for treatment of the delirium and potentially the wrong approach in resolving the patient’s

urgent or acute medical problems.³ “For us, history is so crucial in determining the direction to go as far as the diagnostic workup, and what we have found is that patients who have delirium are unable to provide an accurate history as to why they are in the ED, and this can lead us in a different direction,” observes Han.

For instance, Han recalls one recent case involving a patient who presented to the ED with leg pain after a fall. Han ordered an X-ray, but he noticed that something was a little off about the patient, so he re-examined him. “Finally a family member came, and what I gathered from the family member was that the patient was more confused than normal, and it turned out that the patient was delirious,” explains Han. “What the patient was telling me was just a portion of his history, but

he had actually been confused and falling frequently over the past couple of days.”

Han moved from the X-ray to a more comprehensive workup, and it was discovered that the patient had a urinary tract infection (UTI) that was causing his symptoms. “I could have very easily missed the UTI, which then could have turned into sepsis or something more life-threatening down the line,” he explains.

There are some studies that have shown that if you miss delirium, the diagnosis of underlying illnesses gets delayed, adds Han. “That is a danger as well to the patient,” he says. “As diagnosticians, our job is to diagnose underlying illnesses.” (Also see “Researchers: Consider malnutrition in older adults who present to the ED,” p. 116.)

Get input from family, caregivers

Given the hectic nature of the emergency setting, it can be difficult to pick up on the often subtle signs that a patient may be delirious, explains LaMantia. “It’s an environment that is very busy, and an environment that requires physicians to interact with numerous patients very quickly,” he observes. “Then there is the fact that ... to detect delirium you frequently need to have a baseline knowledge of what the patient was like previously, so this makes it more challenging for a physician who is meeting a patient for the first time to arrive at that diagnosis.”

Consequently, when family or caregivers are present in the ED with the patient, clinicians should take advantage of the opportunity to discern whether a patient’s mental status or behavior is different from the norm. “Family and caregivers can be a great source of information for emergency providers when they are evaluating vulnerable patients,” advises LaMantia. “They can provide context for the patient and point out any changes the patient may be experiencing.”

Han agrees, noting that when family members or a caregiver is present with an older patient, he will typically ask them if the patient is acting normally or more confused. “That is a nice starting point. Then I delve into how confused they are,” he explains. “So if 100% is what the patient is normally in terms of no confusion, then [I will ask family members] what percent of that normal baseline mental status the patient is now.”

Typically, family members or caregivers will provide answers in

EXECUTIVE SUMMARY

While many older patients experience symptoms of delirium while in the emergency setting, the condition often is not recognized by emergency providers. Further, a missed diagnosis can lead to enhanced caregiver stress as well as a higher risk of institutionalization, readmission, and death. Experts suggest that providers need to be better educated on the subtle clues that a patient may be delirious so that steps can be taken to find and address the inciting cause.

- Research shows that delirium is present in 7% to 10% of older patients who present to the ED, but it is unrecognized about 75% of the time.
- Most cases of delirium involve what is called the hypoactive subtype in which patients appear to be sedate or depressed, and they have difficulty paying attention. Many patients with hypoactive delirium are mistaken as being depressed, and as a result, this is a subtype that is frequently missed by clinicians.
- While no screening tool is 100% effective, researchers have had the best success with a two-step process that involves use of a rapid Delirium Triage Screen (DTS) to rule out delirium.
- Patients who are not ruled out by the DTS then undergo a more formal Brief Confusion Assessment Method or B-CAM, a tool that is a modified form of the CAM-ICU.

terms of percentages, saying the patient's mental status is 70% or 80% of normal, for example. "That is a nice, quick way of telling the clinician how confused a patient is and whether or not we need to do a delirium workup," says Han.

Another cardinal tip off for delirium is inattention, so it is important to observe whether or not the patient is paying attention to you, explains Han. "A lot of times, patients who are delirious will be easily distractible. They will look off and you will have to repeat your questions a couple of times. That should raise a light bulb that the patient may be delirious," says Han. "Unfortunately, assessing attention takes a lot of clinical judgment. It is not something people readily pick up, especially early on [in their medical careers]."

Spend time with the patient

Getting to a diagnosis of delirium is particularly challenging in the emergency environment because it requires a lengthy assessment process. However, with awareness of the condition, providers can pick up on the subtle clues that an added workup is needed. "A lot of my residents know at least that something is off with the patient, and that should be a signal that perhaps the patient is delirious," notes Han. "That sense that something is not quite right should prompt you to spend a little bit more time with the patient and try to uncover whether the patient is delirious or not."

Han advises clinicians to visit with the patient multiple times throughout the ED course; this can reveal changes either in the patient's consciousness or the way he or she is acting. Further, verifying a diagnosis of delirium

requires a screening assessment, and this is where many providers fall short, he explains. "Unfortunately, most health care providers in all settings, including the ED, do not routinely use a screening assessment for delirium," says Han.

While no screening tool is 100% effective, Han and his research colleagues have seen the best success with a two-step process they created that first involves use of a rapid delirium triage screen (DTS) to rule out delirium. Patients who are not ruled out by the DTS then undergo a more formal brief confusion assessment method (B-CAM), a tool Han and colleagues developed by modifying the CAM-ICU (confusion assessment method for the ICU).⁴

"[The B-CAM] is also not a perfect tool because it is still only 80% sensitive, so you miss 20% of patients with delirium," explains Han. "But keep in mind that we now miss about 75% of delirium at baseline, so just using this tool would improve recognition significantly."

For emergency providers, it is always a matter of balancing diagnostic accuracy with how long it takes to use the diagnostic tool, explains Han. "The only way to accurately diagnose delirium is to spend a lot of time with the patient," he says. "That is not something that emergency physicians have ... because we see so many patients in a short period of time."

Patients with dementia or mild cognitive impairment are more susceptible to delirium, but delirium can impact other patients as well. Typically, there is a cause or "insult" that prompts the patient to become delirious, explains LaMantia. For example, infections such as UTIs or pneumonia can precipitate delirium. In addition, the introduction of new drugs or drug-drug interactions can

bring on the condition.

"If you take an older patient, who at baseline has mild cognitive impairment, and you give him a new pain medication that he has never taken before, that could tip him over into becoming delirious," says LaMantia. "It is very important to do a very thorough investigation into understanding what is the inciting cause, and then look to remedy that."

Review the care process

Han would like to see more work done at the residency level to make proficiency in the care of patients with geriatric syndromes more of a core competency for emergency providers. He has seen some movement in this direction, as well as an increasing number of geriatric emergency medicine fellowships become available. "As our aging population exponentially grows, I think seeing more geriatric patients is going to be part of our clinical practice," notes Han. "So knowing the different types of geriatric syndromes, like delirium, is going to be something that is bread and butter for all emergency physicians."

There is also room for improvement in the way ED administrators manage the process of care for older patients, observes LaMantia. "We're talking about vulnerable older adults who are incredibly sensitive to the environment and to the interventions that we provide to them," he says. "I would encourage administrators to think about whether there are certain areas of the ED that could be made more geriatric-friendly, and that are staffed by people who have been given extra training in geriatric principles so that they are more attuned to the needs of older adults." ■

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Researchers: Consider malnutrition in older adults who present to the ED

A new study suggests that a high number of older patients who present to the ED are malnourished or at risk of being malnourished, and that many of these patients are unaware of their nutritional status. The findings stem from an eight-week study in which researchers from the University of North Carolina (UNC) at Chapel Hill performed nutritional assessments on patients aged 65 and older who presented to the ED at UNC hospitals. The research took place over the summer of 2013.¹

The researchers report that none of the 138 older adults who were included in the study had cognitive impairments or lived in nursing homes, and none were critically ill. Their nutritional status was assessed using the mini nutritional assessment short-form (MNA-SF), a tool that considers a patient's body mass index, as well as answers to a range of questions about food intake, psychological issues, mobility, and recent illnesses. Scores on the MNA-

SF can range from zero to 14, with malnutrition defined as any score of seven or below. A score of eight to 11 on the assessment puts patients in a category defined as "at risk for malnutrition."

When the scores of the participants were tabulated, researchers found that 60% of participants were either malnourished or at risk for malnutrition. Further, among the 16% of study participants who were found to be malnourished, 77% had not been previously diagnosed as being malnourished. Researchers found this surprising, given that it is well known that malnutrition is a common problem in older adults.

The investigators report that there were no notable differences in the findings related to gender, education level, or where the individuals lived (rural vs. urban setting). However, the prevalence of malnutrition was higher among participants who reported feelings of depression, difficulty

eating due to dental pain or some other oral physical limitation, and those who indicated they had trouble obtaining groceries, either due to financial constraints or transportation limitations.

The authors note that the findings present more evidence that EDs need to strengthen their ability to recognize conditions that commonly impact older adults. They also note that identifying malnutrition in this population and linking malnourished individuals with nutritional support services could be a relatively inexpensive way to provide help to a vulnerable population. ■

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Unique program aims to connect frequent ED utilizers with medical homes, resources to meet complex needs

ED-based care coordinators facilitate access, coverage

The ED at Sinai Hospital of Baltimore in Baltimore, MD, sees a fair number of patients who frequent the facility for primary care, mental health needs, and other services that emergency providers are not ideally suited to provide. It's a common problem in many EDs, but earlier this year, administrators at Sinai Hospital decided to investigate whether they could devise an intervention that would better meet the long-term needs of these frequent users while also preserving the ED's acute-care resources for patients who really need that level of care.

"We took a look through our own information system to see how many people visited the ED repeatedly," explains **William Jaquis**, MD, FACEP, the chief of emergency medicine at Sinai Hospital. "We decided to target a certain group of patients who were frequent utilizers of our services and just see what their needs were and why they were using us in the department."

The investigators concluded that many of the frequent ED utilizers had problems the ED could not adequately address, and that these patients really needed to be connected with other resources. However, making these linkages would require funding and a unique approach. Consequently, the hospital secured a first-year \$200,000 grant from the Maryland Community Health Resources Commission, an amount that will grow to \$800,000 over three

years. Further, the hospital partnered with HealthCare Access Maryland, a non-profit in the state, to pilot a new intervention dubbed the Access Health Program.

Identify prospects

At the heart of the program are three care coordinators from HealthCare Access Maryland who are stationed in the ED over staggered shifts, so at least one of them is usually on hand to intervene with patients who meet the program's criteria for inclusion: they have visited the ED for primary or specialty

care four times in four months, and they have needs that the program can help with. "We have created a flag that basically notifies us that a person has been here recently, and it lets us dig a little bit deeper into the patient," observes Jaquis. "The care coordinators can see the information as well, and we can also notify them to let them know that this is a person who we feel could benefit from their services."

Nakia Abrams, MS, one of the ED-based care coordinators, says she typically receives referrals from the ED's care management coordinator, a social worker, or an emergency

EXECUTIVE SUMMARY

Sinai Hospital of Baltimore in Baltimore, MD, is partnering with HealthCare Access Maryland, a non-profit organization in the state, to link patients who frequent the ED for care with medical homes and other resources that can better meet their medical and social needs. Under the Access Health Program, ED-based care coordinators intervene with patients who meet program criteria, linking them with medical homes and other resources that address their complex needs.

- The hospital has devised a flag to notify the ED when a frequent-utilizing patient presents in the department for care. Care coordinators then meet with these patients and get their consent to participate in the program.
- Within a week of the ED visit, care coordinators schedule a home visit with the patient to establish a care plan containing specific goals and a time frame to carry out these goals. Patients remain in the program for 90 days as care coordinators work to hand them off to longer-term resources.
- Many of the patients enrolled in the program have substance abuse and mental health problems. Patients are also often uninsured and/or homeless.
- Within two months of launching the program, care coordinators enrolled 74 patients, with the goal of eventually bringing that number to 200.

provider. “We are considered contractors with the hospital staff, and as contractors, we have access to the medical record database, so when a client is referred to us, we actually know the reason why he or she came into the ED, and we know their history,” she explains. “We can look at all of that information before we visit with them, and we can use it when we go to actually have a discussion with them about the types of programs or services we can probably help them with.”

Abrams tries to meet with the patients before they leave the triage area so that she can give them a little bit of information about the program. “We don’t dig into it too much at that point because we know that they are there because they don’t feel well or they are in pain,” she explains. “But we ask them if they are interested [in participating], and if they are, then they sign an agreement indicating that they agree to disclose their information and to follow up with us.”

Within a week of enrolling in the program, the care coordinator will schedule a home visit with the patient to conduct a complete assessment and devise a care plan that focuses on patient goals. “The purpose of the home visit is to identify any wrap-around services that we may need to include,” says Abrams. “For instance, if there is a situation where we see that the reason why a client continues to come to the ED is because there are things at home that cause an unhealthy environment, then we address that in the care plan.”

Abrams notes that she will discuss with patients how she will work with them to accomplish the stated goals in the care plan, what the various required steps will be, and what kind of time frame they can anticipate. What is also made clear is that the

patients will only be part of the Access Health Program for 90 days.

“Our program is short-term because the purpose is to connect the client with a longer-term resource,” says Abrams. “We want to gain that client’s trust so that we can get all of the information we need to make that connection.”

Within the three-month period, however, clients are encouraged to contact their care coordinators with any questions or concerns. “That is exactly what we are looking for – someone who is willing to share those feelings with us so that we can help them,” says Abrams. “The handoff [to the longer-term resource] is actually a slow process.”

At press time, the first patients to be enrolled in Access Health had not yet been in the program for 90 days, but some of them had already been connected with long-term resources, says Abrams. “We are still in the picture, though, because we want to make sure that before we close a case, the clients understand what they need to do,” she says.

Partner with resource providers

Many of the patients targeted for the program have complicated needs that bring them to the ED, observes Jaquis. “They may have concomitant behavioral and somatic issues, they may be homeless, and they may not have insurance,” he says. “They may be identified as being on medication, but then aren’t compliant.”

Abrams explains that she commonly works with patients who have a substance abuse problem, and this is often coupled with a mental health issue. “That is a big problem in Baltimore, so we do get a lot of clients who are either seeking prescriptions

or they have substance abuse issues,” she says. “We partner with many mental health organizations in the city to connect these clients with a treatment service and get them into counseling for the mental health issues.”

Also, HealthCare Access Maryland has an entire department that is dedicated to homeless services outreach, adds Abrams. “We probably have eight or more clients who are homeless, and typically what we do is partner with the outreach program to [resolve the problem],” she explains. “If they are homeless and living with a relative or a friend, then we will try to find them permanent, stable housing.”

While issues such as homelessness and substance abuse come up often, the care coordinators also encounter patients with more unique circumstances. For instance, Abrams recalls one recent case that involved a man who was self-employed and uninsured, but he was very involved with fitness training, so he thought he was taking care of himself, she says.

“However, we discovered that he was over-utilizing vitamins and energy drinks, which brought him to the ED,” explains Abrams. “We needed to get him insurance right away because he required emergency surgery, so we were able to get that expedited within 48 hours.”

Abrams also linked the client up with a nutritionist and an internal medicine physician so that he could follow up on his care and receive expert guidance to prevent a similar situation from happening again. “Everything worked out for him,” she says.

While complex issues can be difficult to resolve in the emergency setting, patients can make progress when they are linked with appropriate support services. And even in the

program's early days, it is clear there is ample need for this kind of help. "The care coordinators have already had about 90 patients referred to them, and they have been able to discuss their programs and services with these patients," says Jaquis. "Seventy-four of those patients have agreed to continue with those services, and the care coordinators have already conducted 30 home visits."

A big part of the care coordinator's job involves getting patients plugged into a medical home and educating them about when they should call their primary care physician or a specialist rather than visiting the ED, explains Abrams. "We also want to make sure that when they have scheduled appointments for care, they follow up on getting required lab work completed and any other orders the physician discussed."

Educate providers

Getting the emergency providers on board with the program was not difficult, but it did take some time to bring them up to speed on what types of patients are ideally suited to this type of approach and how the program works, explains Jaquis.

To help educate providers about the program, Access Health conducts weekly in-service sessions, typically during scheduled meetings or physician huddles. During these sessions, the care coordinators provide updates about the program and solicit input on any challenges the providers have faced with the program, explains Abrams. "We also check to see if there are any patients they didn't refer to us at the time of care, but now that they are thinking about it, may benefit from a follow-up post-discharge," she says. "We are doing all we can to educate the staff at Sinai, and a

referral can come from anyone in the hospital as long as the client meets the eligibility qualifications."

While providers have been largely open to the program, there have been some technical hurdles in getting the program up and running. "Our biggest challenge was connecting our data system to Sinai Hospital's data system," observes Abrams. "The two systems are not actually able to communicate, so as a result, our staff members have to document more than once, into more than one system."

Ultimately, Access Health staff members were able to work around the problem, but it is an issue that hospitals should consider if they are interested in setting up a similar approach, advises Abrams. "If it is possible to get your organization's data system to talk to the partnering facility's data system, that will save you a lot of time and energy," she says.

The goal is to eventually enroll 200 patients in the Access Health

Program, but Jaquis emphasizes that the focus of the program is not to get people out of the ED, but rather to connect them with appropriate care and coverage. He notes that the care coordinators have already been able to link 10 of the patients who were identified as being uninsured with insurance. "This program is helping people find pathways to care that provide a better long-term outcome for them," he explains. "We are very connected to outcome measures with this program. It will be good see within the next 6 to 12 months how we are doing." ■

SOURCES

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CNE/CME OBJECTIVES

After completing this activity, participants will be able to:

1. Identify legal issues related to emergency medicine practice;
2. Explain how the legal issues related to emergency medicine practice affect nurses, physicians, legal counsel, management, and patients; and
3. Integrate practical solutions to reduce risk into daily practice.

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CNE/CME QUESTIONS

- 1. Speaking about the current Ebola virus disease outbreak in West Africa, David Kuhar, MD, says that one of the greatest times of risk for health care workers is:**
 - A. before they have identified a case
 - B. when they are removing protective gear
 - C. when they are collecting blood specimens for testing
 - D. when they are providing supportive care
- 2. Experts say symptoms of EVD typically begin:**
 - A. 20 to 23 days after exposure
 - B. 15 to 18 days after exposure
 - C. 12 to 15 days after exposure
 - D. 8 to 10 days after exposure
- 3. Kuhar states that while the CDC is not being too prescriptive on what types of protective clothing hospitals should provide to health care workers, the emphasis needs to be on:**
 - A. making workers confident that they are protected from EVD
 - B. protecting the eyes and mouth
 - C. insuring that workers don't come into contact with blood or other body fluids
 - D. providing maximum coverage of the body
- 4. Research conducted by Jin Han, MD, MSc, shows that when older adults present to the ED with delirium, the diagnosis is missed what percentage of the time?**
 - A. 20%
 - B. 35%
 - C. 50%
 - D. 75%
- 5. Han states that verifying a diagnosis of delirium requires:**
 - A. a screening assessment
 - B. the recognition of subtle clues
 - C. a series of blood tests
 - D. consultation with a specialist
- 6. Nakia Abrams, MS, an ED-based care coordinator who is part of the Access Health Program at Sinai Hospital in Baltimore, MD, says that a big part of her job involves:**
 - A. working with patients who are chronically ill
 - B. getting patients plugged into a medical home
 - C. arranging child care for patients who have young children and complicated medical needs
 - D. identifying patients who are abusing the ED