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ED-based screening programs for hepatitis C (HCV) highlight significant opportunity to identify patients, prevent downstream costs/complications

Pilot study data show uninsured, underinsured adversely impacted by HCV

There is provocative new evidence that EDs could play a crucial role in identifying patients with the hepatitis C virus (HCV) and connecting these individuals with needed care. In just the first few weeks of a new pilot study that is testing the impact of ED-based screening

EXECUTIVE SUMMARY

New data suggest there is a huge opportunity for EDs to identify patients with the hepatitis C virus (HCV) and link them into care before downstream complications lead to higher medical costs and adverse outcomes. Early results from a pilot study at the University of Alabama Medical Center in Birmingham show that at least 12% of the targeted baby boomer population being screened for HCV in the ED is testing positive for HCV, with confirmatory tests showing that about 9% of the screened population is infected with the disease.

- Both the Centers for Disease Control in Atlanta and the US Preventive Services Task Force recommend one-time HCV screening for patients who were born between 1945 and 1965.
- Public health experts say 75% of HCV infections occur in patients born during the baby boomer years, and that roughly half of them are unaware of their HCV status.
- Researchers at UAB report that so many patients are testing positive for HCV that demand for care can quickly overwhelm the health system if new primary care/specialty resources are not identified.
- Administrators of ED-based HCV screening programs in both Birmingham and Houston note that EDs with existing screening programs for HIV should have the easiest time implementing HCV screening. They also stress that patients are more accepting of HCV screening, and that the counseling process is easier.

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for HCV among baby boomers who are unaware of their HCV status, researchers at the University of Alabama Medical Center in Birmingham (UAB) have found that at least 12% of the population being screened in the ED at UAB are testing positive for HCV antibodies, and confirmatory tests are showing that about 9% of the patients population is, indeed, infected with the disease.

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Both the Centers for Disease Control and Prevention (CDC)[1] and the U.S. Preventive Services Task Force[2] have called for routine screening among patients at high risk for HCV, and one-time screening for patients born between 1945 and 1965, a cohort found to be disproportionately impacted by the disease. Public health experts report that 75% of HCV infections occur in patients within this birth cohort, and roughly half of those infected in this group are not aware of their infection status.

While only a handful of EDs have begun to provide some level of screening for HCV, the early results from the pilot study at UAB show that there can be no denying the potential yield from these efforts. In fact, researchers at UAB were initially stunned by the results.

"We had seven or eight patients test positive for HCV on the first day of testing, and I thought there must be something wrong with the machine. It must be calibrated wrong. And then the next day came and we saw the same thing," explains **James Galbraith**, MD, an associate professor of emergency medicine at UAB and the lead investigator on the pilot. "So then we waited for the confirmatory PCR [polymerase chain reaction] tests to be done, and we couldn't believe it."

Even 10 weeks into the testing program, the results are pretty consistent with the first days of screening, says Galbraith. "The number of antibody positives that we have in a given day just goes along with our volume. If we test 40 people, we are going to see four or five people test positive. If we test 100, we will have 12 test positive," he explains.

Patients accept HCV screening

Armed with a grant from the CDC Foundation, launching the HCV screening program was not a heavy lift for Galbraith because he was able to leverage the infrastructure already in place in the ED at UAB to conduct HIV screening. In fact, he notes that it is definitely easier to get patients to go along with the HCV tests. "We are getting to about 75% of our baby boomer population," he says, noting that roughly one-quarter of the baby boomers are too sick when they come in to the ED to be even offered the HCV screening. "Of those patients who are offered screening and are unaware of their HCV status, we have a 91% acceptance rate of the test offering, so we are testing a majority of the baby boomers who are coming through."

There is much less of a stigma associated with HCV than HIV, observes Galbraith. As a result, patient counseling around the test is easier to deliver. And the patients have thus far proven to be much more proactive in pursuing care. "One thing I have noticed is that these patients call us. Unlike with HIV, where sometimes we are telling patients results and we can never find them again … the vast majority of these patients have really taken ownership of their [HCV] results, and they are calling us to ask us what we can do to help them," he explains. "It is not something that they are just going home to ignore."

Patients who test positive for HCV are linked with a care coordinator who will be in touch with them by phone within a week of their diagnosis. "We help them link to a primary care provider if they don't already have one, and then they are linked to our liver disease clinic with our hepatitis specialists," explains Galbraith.

Early concerns that patients might panic upon hearing that they have HCV, possibly leading to a long, drawn-out process of counseling in the ED, have evaporated, given the ease with which patients have accepted and responded to the health information. "We have found that it has been relatively simple," says Galbraith.

The only complaint is that there are so many patients who require counseling that staff stay very busy and engaged with the HCV screening. "Assuming that you spend 10 minutes with a patient — giving them the linkage information, giving them post-test counseling, explaining what [the positive test results] mean, and what the next steps are — that is a lot of time that is taken away [from other tasks] in the ED," acknowledges Galbraith.

Linkage to primary care is critical

What Galbraith has determined thus far is that uninsured and under-insured patients are much more likely to receive positive test results than patients who come in with private insurance. "If you look at the privately insured patients in our department, you will see an overall 4.4% prevalence rate of being HCV positive. When you look at the uninsured or Medicaid recipients, that prevalence goes up to between 16% and 17%," explains Galbraith. "Many of these patients have had risk factors [for HCV]. They just have never had a physician to go to [in order to] have these tests done before."

The data illustrate precisely why ED-based screening can be such a powerful tool in reaching the patients most at risk for HCV. However, the opportunity goes hand-in-hand with the challenge of connecting the large number of patients identified through the HCV screening program with primary care providers. "Every month we have another 100 patients who need to be followed, so clinics can become quickly overwhelmed," explains Galbraith. "Right now, our hospital has been opening up new clinics for patients identified through our department, so we have been fortunate."

There are drugs in the development pipeline that could drastically reduce the treatment time required for patients diagnosed with HCV, but ongoing primary care is critical, explains Galbraith. "Getting someone treated for HCV requires that they've got their blood pressure under control and their diabetes under control. You certainly don't want to put them through all the risks and treatments for hepatitis C only to find out that they have breast cancer or some other health issue," he says. "We won't be successful at prolonging someone's life if all we do is treat them for HCV because these patients certainly have other conditions. And lack of primary care is a common thing that we have seen, particularly among baby boomers."

HCV screening begins in Houston ED

The UAB program is the only ED-based HCV screening program that has been funded through the CDC thus far, but a few other medical centers are beginning to offer HCV screening as well. For instance, with funding from Gilead Sciences, a Foster City, CA-based biotechnology company, the ED at Memorial Hermann Hospital in Houston, TX, began offering HCV screening in March of 2013, according to **Pamela Green**, RN, BSN, the HIV project coordinator and an emergency department nurse at Memorial Hermann.

Through the program, patients who present to the ED with risk factors for HCV — such as prior IV drug abuse, a blood transfusion prior to 1992, or a large number of tattoos — will be offered HCV screening, as well as all baby boomers who are unaware of their HCV status. Memorial Hermann has a nurse-driven HIV screening program in the ED, but rather than place more responsibilities on the nurses, administrators have elected to have residents take charge of the HCV testing. However, results from the HCV screening program are similar to what UAB is experiencing.

"Overall, we are seeing the same high numbers that [Galbraith] has seen," explains Green, citing a positive screening rate of about 10%. Some of these patients have tested positive for HCV in the past, but they were either never connected into care for the disease at that time or they underwent treatment for HCV, but because of knowledge deficits, didn't realize that their antibodies would always test positive for the disease, observes Green.

As with UAB's program, Green has found patients to be very accepting of the testing. And there is a process in place to notify patients when their tests come back positive. "We have a letter we send out informing them that they have been found to be antibody positive for hepatitis C," explains Green. "We provide a phone number for them to call, and if we haven't heard from them, we go ahead and print out their demographics and we get in touch with them."

Staff then take steps to determine how the patients may have acquired the disease, and they provide them with several options for further testing and care. "We then find out what choices the patients have made — where they want to go for follow-up," adds Green.

While the HCV screening hasn't been in place for long at Memorial Hermann, Green has a few lessons to pass along to ED colleagues interested in setting up a program in their own settings. First, she advises ED administrators to incorporate HCV testing into their electronic medical records (EMR). "Then you won't have to worry about someone forgetting that they should have tested a particular patient for hepatitis C because the patient was 50 years old," she says. "If you have it built into your EMR, it is an automatic firing of the order process and an automatic questioning process will appear."

Green also emphasizes that at least for the first year of testing, it doesn't make that much difference whether you identify known HCV patients or new diagnosis patients; it is just important to come up with a baseline for your institution. "In most cities, hepatitis C is not something that is on the surveillance radar. It hasn't been monitored by health departments," she says. "Right now, the recommendation from the CDC is that people within the [baby boomer] birth cohort be tested once, so it is irrelevant if you have a known hepatitis C patient. At least it is documented that they have indeed been tested, and you can follow-up afterward with what other health care needs that they have."

Learn from ED-based HIV screening programs

There is much to learn from the ED-based screening efforts for HIV, stresses Green. "If you look back at [the experiences] with HIV, the CDC put out recommendations that essentially went ignored for two years before any of the EDs started implementation," she observes. "It would be nice if we could learn from those efforts and build something that is truly a strong program from our experiences and our HIV work. I think [if we do that] we will be better off down the road."

Given the clear opportunity to identify high numbers of patients with HCV and connect them into potentially life-saving care, Galbraith, too, would like to see more EDs step up to the plate. "I am hopeful that this [pilot study data at UAB] will be a call for other EDs to obtain funding to launch similar programs because they really need to validate our results outside of what we are seeing in our department," he explains.

In particular, Galbraith observes that EDs that already have screening programs in place for HIV should have the easiest time implementing screening for HCV. "If you have been successful with HIV, you absolutely can be successful with doing a similar screening program for hepatitis C. I don't think this would be difficult to add on, other than the cost."

While Galbraith has obtained funding to cover the costs of his HCV screening program, he says the expenses associated with all the staffing, information systems, management, and testing amount to about $250,000 to screen 8,000 people in a year. "That includes assistance with linking patients to care and a lot of things that you might not need if everyone was insured," he says, noting that health care reform could offset at least some of these costs. "There is a large population that is out there that has been silently carrying this disease, and no one has really been aware of it. It has been suspected, but it is more real now as we expand screening." ■

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As the prescribing practices of emergency providers come under enhanced scrutiny, watch for red flags of drug-seeking behavior

Use the opportunity of an ED visit to identify, intervene with youth at risk for overdoses, misuse

Every day emergency providers are faced with the difficult challenge of caring for patients who require treatment for pain while also endeavoring to identify those patients who are at risk for substance abuse so that they can be steered toward non-opiate treatment alternatives or, perhaps, addiction counseling. And such decision making is under enhanced scrutiny because as opioid and sedative prescriptions have continued to increase in recent years, so have deaths from the overuse of these powerful drugs. The Centers for Disease Control and Prevention in Atlanta, GA, reports that deaths from opioid medication overdoses alone have reached epidemic proportions in the United States.

In the absence of a prescribing or medical history, there is no question that emergency providers often struggle with making the right call. "A huge percentage of patients come in with pain complaints. We want to do the right thing for patients, and we want to treat their pain, but there are definitely some patients who have addiction problems who, frankly, come into the ED to use us for a prescription to meet their addiction needs," explains **Scott Weiner**, MD, MPH, FACEP, an emergency physician at Tufts Medical Center in Boston, MA, and the director of clinical research in the Division of Emergency Medicine at Tufts University School of Medicine. "Currently, there is not a good way of detecting those patients or determining who is at risk."

The result is that such decisions are often based on what a provider's impressions are as opposed to hard data or evidence. "What I have noticed is that there is a lot of heterogeneity between my colleagues and myself [regarding these types of decisions]," says Weiner. "I think that is just normal because people have different senses of who is exhibiting drug-seeking behavior and who isn't, so I really think we need more objective criteria to determine the patients who are at risk."

Consider characteristics of drug seekers, abusers

To obtain those data, Weiner and colleagues decided to look at the characteristics of patients who had obtained 10 or more schedule II-V prescriptions from 10 or more providers in a given year, and they compared them with patients who used fewer providers and prescriptions. The idea was to work toward developing a risk profile that providers could rely on when treating patients who present to the ED with pain, much as they use risk scores when evaluating patients with cardiac

EXECUTIVE SUMMARY

With deaths from opioid medication-related overdoses reaching epidemic proportions, researchers at two academic medical centers in Boston have identified key characteristics or red-flags that patients may be exhibiting drug-seeking behavior. In a separate study, researchers note that the ED is a prime location for identifying and intervening with young people who are engaged in the non-medical use of opioid and sedative medications.
• Researchers have found that drug-seeking patients are more likely to request a narcotic by name, have multiple visits for the same complaint, report an allergy to non-narcotic drugs, have pain out of proportion to the exam, and visit the ED on weekends.
• When physicians compared their prescribing decisions based on their own impressions with data from a prescription drug monitoring program (PDMP), they changed their prescribing plan in 10% of cases. Physicians ended up writing more prescriptions for opioids once they had the PDMP data.
• Researchers at the University of Michigan in Ann Arbor found that one in 10 adolescents who presented to the ED between September 2010 and September 2011 reported that they engaged in non-prescription opioid or sedative use within the previous year.

problems, explains Weiner. "A low-risk patient might still have cardiac disease, but we know it is a very unlikely situation. And a high-risk patient might not have cardiac disease, but we know to be very careful with that patient because they have all these risk factors," he says.

If providers were armed with information about the characteristics of patients who have what Weiner refers to as aberrant drug-related behaviors, they might be better able to tailor their treatment decisions, he observes. "For patients who are high risk, you might pursue alternative treatments that are not opiate, and you might spend more time counseling and screening before you write a prescription," he says.

After poring over about 18 months of data culled from ED patient encounters at two academic medical centers in Boston, MA, the researchers found that drug-seeking patients were more likely to be white than non-white, and they were also more likely to:

- request a narcotic by name;
- have multiple visits for the same complaint;
- report an allergy to non-narcotic drugs;
- have pain out of proportion to the exam;
- come to the ED on weekends.

Throw out preconceived notions

Researchers also derived findings about clinical decision making from an earlier research endeavor in which Wiener and colleagues compared ED physician impressions of drug-seeking behavior with objective criteria from a state prescription drug monitoring program.[1]

"The emergency providers thought that men were more likely to be drug seekers than women, but it was obviously the reverse. The finding was pertinent because shortly after the paper came out … the CDC came out with a report saying that women were at much higher risk of overdose death from opiates," explains Weiner. The message to providers is to just be a little bit more careful with women, adds Weiner.

He also points out that the researchers found no difference in age between drug seekers and non-drug seekers, suggesting that any preconceived notions that providers have on that aspect should probably be thrown out.

One other finding was that emergency physicians tended to put a lot more weight on patients with a suspicious history or pain symptoms that they found to be out of proportion to the examination than did the prescription drug monitoring program data. This is a concern, says Weiner, because these criteria are subjective. "It is just a call to tone down a little bit on the gestalt and rely more on other factors," he says.

One of the more intriguing findings from the study was that once emergency physicians were able to compare their impressions regarding the patients with hard data from the prescription drug monitoring program, they changed their prescribing in about 10% of the cases. But this resulted in the physicians actually prescribing opioids for more patients than originally planned. The net result was that 6.5% of patients received an opioid prescription and 3% did not receive a prescription, a prescription that was previously planned.

View ED visit as an opportunity

While ED providers clearly need to be careful when prescribing opiates or sedatives, experts suggest they also have an important role to play in identifying young people who are engaging in the non-medical use of these powerful drugs. One new study suggests that non-medical prescription opiate use (NPOU) and non-medical prescription sedative use (NPSU) are a common occurrence among adolescents, and that the ED is advantageously situated to implement screening and intervention efforts.

As many as one in 10 adolescents who presented to the ED between September 2010 and September 2011 reported that they engaged in NPOU or NPSU within the past year, according to research conducted at the University of Michigan Medical Center in Ann Arbor.[2]

Further, researchers report that many of these patients had easy access to prescription medications. Among the 185 participants who reported NPOU, nearly 15% reported that there was a prescription at home for an opioid, and of the 115 patients who reported NPSU, there was a prescription at home for sedatives. (Also, see "Young male athletes at heightened risk for use, misuse of opioid medications," p. 8.)

The data present a clear opportunity for EDs to intervene with these patients, according to investigators. "What we have found in other studies and in practice for many years is that youth and adults are more forthcoming than one would expect when asked questions about how much they are using an assortment of different medications and drugs," explains **Rebecca Cunningham**, MD, a co-author of the study and an associate professor of emergency medicine at the University of Michigan.

"And often there is an opportunity to figure out that someone has actually tripped over from misuse to real dependence on a medication, and that another strategy would be more appropriate."

Consider SBIRT screening

Cunningham notes that some experts believe that all patients who present to the ED should undergo screening in a process referred to as Screening Brief Intervention and Referral to Treatment, or SBIRT. "That is one way to use the opportunity of an ED visit to collect information on people who may be having problems in many other aspects of their lives, and provide them with that opportunity for intervention and referral while they are seeing the physician for other reasons," she observes. The SBIRT process has thus far been primarily used to address problem drinkers, but Cunningham believes it could be effective with respect to NPOU and NPSU as well.

Cunningham also advises that ED physicians may or may not be the best people to actually carry out screening. "It can be done in many other ways, and perhaps should be incorporated into the EMR technology that is in place in EDs," she explains. "Further, those EDs that are forward-thinking increasingly have dedicated personnel who focus on providing health behavior interventions."

Such a strategy can become cost-effective if it reduces hospital utilization, says Cunningham. "If you reduce repeat visits by providing a brief intervention or brief screening during an ED visit, then you will ultimately save your hospital money, " she explains. "There have been multiple studies showing that SBIRT is cost-effective to hospitals."

Patients who report NPOU or NPSU also tend to be at risk for other things such as alcohol use, dating violence, requiring public assistance, or having failing grades, observes Cunningham. Consequently, screening and intervention have the potential to pick up and potentially alleviate numerous problems.

Researchers at the University of Michigan Injury Center in Ann Arbor are now testing the efficacy and feasibility of offering an ED-based, 30-minute counseling intervention to young adults who are at risk for an overdose, have already had an overdose, or have reported misusing prescription medications in the past. "Overdose is becoming the leading cause of death among this population in Michigan and in other states, surpassing motor vehicle crashes," says Cunningham. "There is a lot of downtime in the ED, and that gets people focused on harm reduction."

The approach is aimed at getting people to recognize that they are having problems, and to identify places, times, or ways they are misusing that might put them at risk for an overdose; they will then be provided with referrals and next steps to take when they leave the ED, explains Cunningham.

Develop tools, resources

Weiner acknowledges that identifying patients who are at risk for medication abuse or dependency is only half the battle. Providers also need to have tools and resources at their disposal so that these patients can take the next step. Simply having a discussion with patients about their drug use can be challenging.

"If I see a patient I am concerned about, I will print out their profile from the prescription drug monitoring program [PDMP], and I will bring it into the room and share it with the patient," says Weiner. "It is really their information, so they have a right to be looking at it, too."

The patient reactions from this approach can vary quite a bit. "Some people walk out right away, some people deny [the information on the report], and some say there must a mistake," explains Weiner. "But there is a subset of patients for whom it is useful to realize that they have a problem, and to show them on paper, with objective evidence, that there is a problem."

In these cases, Weiner can make referrals for detoxification or refer patients back to their primary care physicians for counseling. The options are limited, he says. But even more challenging is trying to assess outcomes — which are critical to devising a complete solution to the problem, says Weiner. Consequently, Weiner and colleagues are working with the state of Massachusetts to see if they can get access to this data.

"The key word is outcomes," he says. "We need to know what happens to patients in order to know how best to use the [PDMP, clinical data, and screening] tools, and that is what my next steps are about," he says. ■

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Young male athletes at heightened risk for use, misuse of opioid medications

There is new evidence that young male athletes are more likely to be prescribed opioid medications and to misuse them than non-athletes, according to research conducted at the Institute for Research on Women and Gender (IRWG) at the University of Michigan in Ann Arbor.[1]

Investigators, led by **Philip Veliz**, PhD, a research fellow at IRWG, followed 1,540 teenagers of both genders, finding that male athletes were more likely to use and misuse opioid medications at least one time during the previous year than non-athlete males, but the same did not hold true for the opposite sex. Female athletes were not more likely to be prescribed opioids or to misuse them.

Investigators suggest that the discrepancy between the two genders may be partly related to the fact that males are more likely to play sports associated with higher rates of injuries, such as wrestling and football. However, they also note that young men rely more on sports for their social status than young women, and this may incline males to play through periods of pain.

While opioids are helpful for managing pain on a short-term basis, experts urge providers to consider non-opioid alternatives whenever possible. And when opioids must be used, experts advise providers to discuss medication management with both teenagers and their parents, and make sure they are aware of the dangers of abuse. ■

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In review of ED utilization reduction strategies, data regarding impact on safety, outcomes in short supply

Emergency providers need 'a seat at the table' in discussions about ED utilization going forward

In an effort to drive down costs, health care organizations have focused intently in recent years on developing strategies to curb ED utilization. While some of these strategies have been based in the ED, there have also been a number non-ED based inter-

EXECUTIVE SUMMARY

To gather insight on an array strategies used to curb ED utilization, investigators conducted a systematic review of five types of interventions that are based outside of the ED: patient education, patient financial incentives, the creation of additional non-ED capacity, pre-hospital diversion, and managed care. While the available evidence showed that all of the interventions had some impact on reducing ED utilization, researchers caution that there was scant data showing what impact these interventions had on outcomes or safety.
• Investigators found that patient education interventions were associated with the greatest magnitude of reductions in ED use, but they stress that the interventions reviewed were very heterogeneous.
• Interventions involving patient financial incentives primarily focused on putting financial barriers in place between patients and the ED. They were effective at reducing ED utilization, but investigators caution that policy makers need to consider the potential impact on outcomes.
• There was some evidence that creating additional non-ED capacity fueled demand for care, but had a small impact on ED utilization.
• Going forward, emergency providers need to fully engage in any discussions about ED utilization and demonstrate the value that EDs bring to the health care system, say experts.

ventions. However, what remains unclear is not just which of these strategies are most effective, but also whether they are associated with unintended consequences. (Also see "Any changes in ED utilization hinge on delivery system reform," p. 10)

It's an issue of high importance to ED providers and policy makers alike, particularly as the health reform law ushers in changes intended to give many more people access to coverage and care. It is not yet apparent whether large numbers of newly insured patients will cause ED volumes to spike, as they did initially in Massachusetts when that state implemented health reform a few years ago. Nevertheless, to gather added insight on what is known about ED-utilization reduction strategies, investigators looked at the available evidence regarding five types of non-ED-based interventions, including:

- patient education;
- patient financial incentives;
- the creation of additional non-ED capacity;
- pre-hospital diversion;
- managed care.

The investigators conducted a systematic review of 39 studies, including 34 that were observational and five that were randomized controlled trials.[1] What they found was that interventions that can be broadly categorized as patient education were associated with the greatest magnitude of reductions, but this does not necessarily mean that educational strategies offer more potential to reduce ED use than the other types of interventions, according to co-author Jesse Pines, MD, MBA, MSCE, director of the Office of Clinical Practice Innovation and professor of emergency medicine at George Washington University School of Medicine and Health Sciences in Washington, DC.

"To say that education is more effective than other types of interventions is probably a stretch just because the interventions were so heterogeneous," says Pines. "But the most effective intervention we found was actually an educational intervention that involved giving patients information about ear infections in kids, and also giving parents specific medicine that can help with the symptoms of ear infection to reduce the need for a face-to-face visit."

Notably, none of the educational interventions studied involved general education about when to use the ED versus clinics or primary care physicians (PCP) – a type of intervention that figures prominently in Washington state's well-publicized efforts to reduce ED utilization. "We were looking at specific clinical conditions," says Pines.

Currently in vogue: Managed care interventions

The interventions categorized as using patient financial incentives mainly consisted of putting financial barriers in place between patients and the ED. "Having higher copays was the main thing," says Pines. And these types of interventions clearly had an impact on ED use. "The early study on that is the Rand Health Insurance Experiment, where [investigators] gave patients variable copays for ED visits, and the patients who had zero copays had the highest ED use," says Pines.[2]

Interventions that involved creating additional non-ED capacity typically involved the opening of urgent care centers and retail clinics, or moves to extend the hours of PCPs. In general, what the investigators found from these types of interventions was that they had the effect of increasing overall demand for care. "If you open up a new health care establishment, people will come there. The question is are these replacements for ED visits, or are these patients who wouldn't have been seen [in the ED]," says Pines. "What one study [from Ireland] found was there was some degree of supply-induced demand, so if you open up a new establishment, more people will come and your overall volume will increase, although you will get some degree of substitution, but it is pretty small."[3]

The studies looking at pre-hospital diversion primarily involved expanding the scope of practice for paramedics so that they could potentially interface with medical command and release people in the field or, alternatively, take patients to alternative sites rather than the ED, explains Pines. "These interventions can potentially be effective, but there really isn't a lot of evidence behind this yet," he says.

Managed care interventions involved providing financial incentives to PCPs to see patients in a timely manner, and some of these efforts were effective, explains Pines. "This is one of the major interventions that is going on now with accountable care organizations," he observes. "It is a new way of paying physicians outside of the hospital where the assumption is that by delivering more efficient care, people will use the ED less."

Data on safety, outcomes still needed

While most of the interventions reviewed had at least some success in reducing ED utilization, Pines observes that missing from most of these

studies were data regarding the impact on clinical outcomes. "The major issue is patient safety. There are a lot of ways you can discourage patients from coming into the hospital by creating economic barriers for them or creating logistical barriers for them in seeking care," he says. "Creating barriers will certainly have the effect — and this is what we found — of reducing utilization, but the question is whether people who actually need to be seen in the ED are not being seen because those barriers are being erected."

Very few of the studies reviewed or even assessed whether clinical outcomes were changed as a result of the interventions, says Pines. "In most of the studies, it was more of a rarity that any clinical outcomes were mentioned." However, as health care reform unfolds, along with shared-savings models and accountable care organizations, Pines sees safety and clinical impact as high on the list of metrics that will be monitored. The hope is that such innovations will provide patients with better access to care and better managed care without producing negative consequences.

"Creating economic barriers has the impact of potentially harming people who are already disadvantaged," stresses Pines. "To some people, a $50 or $100 copay may not matter, but to a lot of people it might, and those people will have less access to other outpatient venues."

Time to fully engage

Whether utilization reduction strategies are based in the ED or in other settings, Pines stresses that ED providers need to be fully engaged in how they are structured. "A lot of times people who work outside of the ED don't really understand what happens in the ED, so I think having a seat at the table will allow us to argue why having EDs open is valuable, and what value we add to the system," he says. "I think among people who don't work in the ED, that [value] is very under-appreciated."

Another factor that may be under-appreciated is the fact that emergency providers are problem solvers, says Pines. "With the new payment models, there will be a lot of new delivery mechanisms that will both facilitate new access to care, but also could potentially create additional problems. And when those problems arise, I think emergency physicians are going to be asked to participate in solutions," he says. "The message for emergency physicians is to get a seat at the table, participate in the process, and then figure out ways that the unique skills of emergency physicians can add value to these new models." ■

SOURCE

• **Jesse Pines**, MD, MBA, MSCE, Director, Office of Clinical Practice Innovation, and Professor of Emergency Medicine, George Washington University School of Medicine and Health Sciences, Washington, DC. Phone: 202-994-4128.

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Management Tip

Any changes in ED utilization hinge on delivery system reform

Should ED administrators be prepared for a spike in volume, or perhaps reduced volume, now that health care reform has made insurance coverage accessible to many more Americans? Not necessarily, according to **Jesse Pines**, MD, MBA,

COMING IN FUTURE MONTHS

- Behavioral health-driven interventions boost care, ease congestion
- Impact of health reform on ED operations, volumes
- Using post-ED visit text messaging to improve outcomes
- Battling provider burnout in the ED

MSCE, director of the Office of Clinical Practice Innovation and professor of emergency medicine at George Washington University School of Medicine and Health Sciences in Washington, DC. "There are a number of competing effects," he says. "I don't think health insurance reform is going to have a big impact on ED utilization. However, delivery system reform might."

The impact of delivery system reform really depends on how it is implemented and who it is available to, explains Pines. "If delivery system reform is available to everyone, including patients with Medicaid insurance, then I think we will probably see a reduction to some degree on low-acuity ED visits, but I think it is likely that a lot of these delivery system reforms will not be offered to everyone," he says.

For example, Pines offers that while there are lot of medical home models being implemented around the country, very few of these models are being tested in Medicaid populations, which is a critical population to consider when looking at ED utilization. "Over the last ten years the rise in ED visits has been primarily [due to] an increase in Medicaid patients coming to the ED," says Pines. ■

CNE/CME INSTRUCTIONS

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

1. Read and study the activity, using the provided references for further research.
2. Log on to **www.cmecity.com** to take a post-test; tests can be taken after each issue or collectively at the end of the semester. *First-time users will have to register on the site using the 8-digit subscriber number printed on their mailing label, invoice, or renewal notice.*
3. Pass the online tests with a score of 100%; you will be allowed to answer the questions as many times as needed to achieve a score of 100%.
4. After successfully completing the last test of the semester, your browser will be automatically directed to the activity evaluation form, which you will submit online.
5. Once the evaluation is received, a credit letter will be sent to you. ■

CNE/CME 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

1. According to public health experts' report, what percentage of hepatitis C (HCV) infections occur in patients born between 1945 and 1965, and roughly half of these patients are unaware of their HCV status?
A. 25%
B. 50%
C. 75%
D. 95%

2. **Pamela Green**, RN, BSN, the HIV project coordinator and an emergency department nurse at Memorial Hermann Hospital, advises ED administrators interested in implementing an HCV screening program to incorporate HCV screening:
A. into the electronic medical record (EMR)

B. into the triage process
C. into the responsibilities for the ED nurses
D. into the discharge planning process

3. Green also advises that in the first year of an HCV screening program, it is important to:
A. get all the nurses and techs trained on the HCV testing and counseling process
B. get a baseline for your institution
C. find out whether patients are accepting of the HCV tests
D. all of the above

4. After poring over about 18 months of data culled from ED patient encounters at two academic medical centers in Boston, MA, researchers found that drug-seeking patients were more likely to be white than non-white, and they were also more likely to:
A. request a narcotic by name
B. have multiple visits for the same complaint
C. report an allergy to non-narcotic drugs
D. all of the above

5. A study conducted at the University of Michigan Medical Center in Ann Arbor suggests that non-medical prescription opiate use (NPOU) and non-medical prescription sedative use (NPSU) are a common occurrence among:
A. adolescents
B. baby boomers
C. single women in their 20s
D. single parents on Medicaid

6. In a systematic review of 39 studies that examined non-ED-based interventions to curb ED utilization, researchers found that strategies using patient financial incentives as the primary lever typically involved:
A. the implementation of higher copays in the ED
B. mechanisms to steer patients toward urgent care
C. heavy advertising of ED fees
D. the implementation of low-cost primary care clinics

2013 SALARY SURVEY RESULTS

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Salaries are in a holding pattern, although upward pressure continues on compensation for ED medical directors

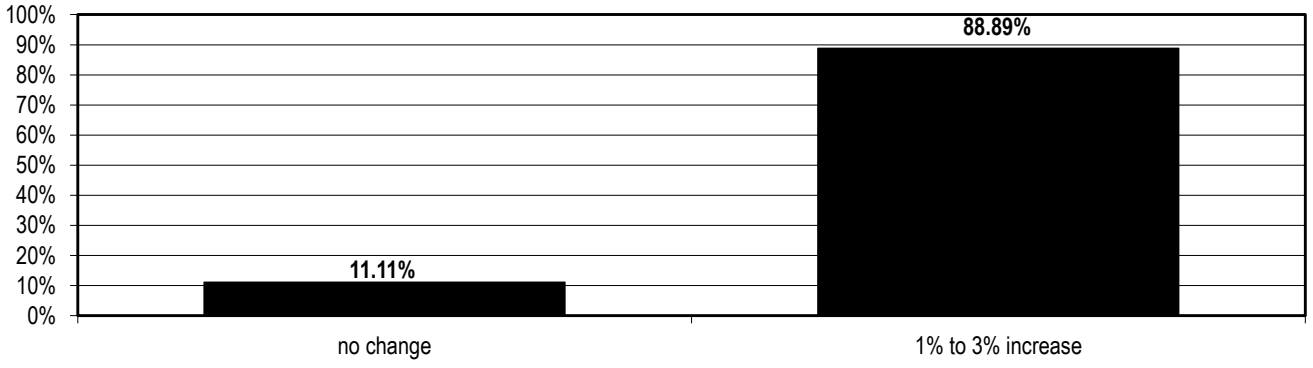
While emergency care continues to be a prime focus for cost-containment efforts, compensation for nurse and physician leaders in the ED has remained relatively stable over the past year, although there is definitely evidence that health care organizations are in no mood to spend liberally for clinical or administrative leaders.

Nearly 90% of respondents to the 2013 *ED Management* Survey reported receiving modest salary hikes in the 1% to 3% range, with just over 11% reporting no change in their compensation. Last year, more than 60% reported pay hikes in the 1% to 3% range, but 9% reported pay increases of 4% to 6%, and 4% reported salary hikes of 7% to 10%. However, about one-quarter of respondents reported no change in salary last year, and there were no reports of salary decreases.

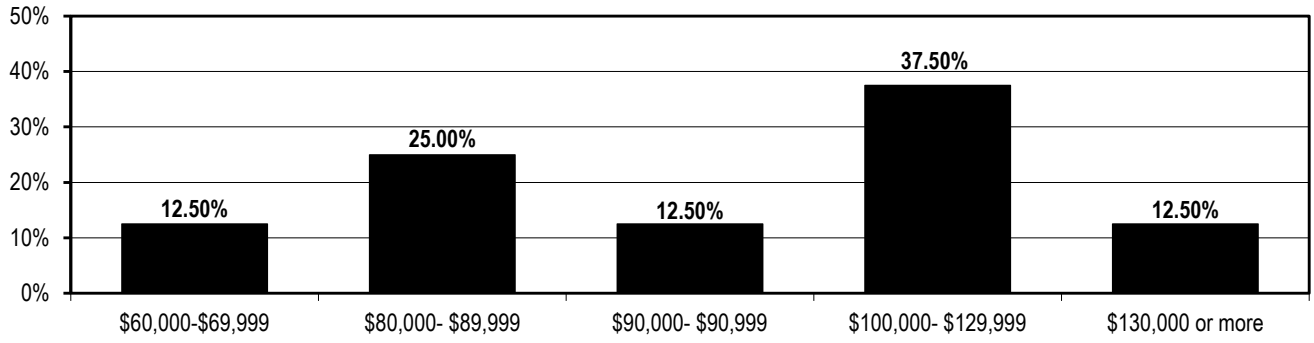
The data from this year's survey are consistent with what **Diana Contino**, RN, MBA, FAEN, a senior manager at Deloitte Consulting in Los Angeles, CA, has been observing in nurse leader salaries over the past 12 months. "Pressures to reduce costs continue to be significant. All of our clients are looking for ways to reduce costs," she says. "Many are looking at operations and labor in general. I haven't come across organizations specifically trying to reduce nurse director salaries, but rather they are focused on hiring the right talent for their objectives and goals."

Nonetheless, with the stock market on the upswing and the economy slowly improving, some older nurses are announcing plans to retire soon, potentially creat-

In the Last Year, How Has Your Salary Changed?



What Is Your Annual Gross Income from Your Primary Health Care Position?



ing churn in the nursing ranks, observes Contino. While this could open up opportunities in the nursing director ranks, hospitals have high expectations for leadership candidates. They are looking for nurses with an impressive array of clinical and administrative skills.

"I have seen many organizations strive to hire well-rounded business and talent-focused managers," she says. "As [health care] environments grow increasingly complex, leadership skills have to be broad to address the talent, customer service, operational performance, technology, and clinical quality needs of our population."

There was little change in reported gross annual incomes in this year's survey. More than a third of respondents (37.5%) reported earnings between $100,000 and $129,999, and 12.5% reported salaries of $130,000 or more. Another 12.5% reported earnings between $90,000 and $90.999, 25% reported salaries in the $80,000to $89,999 range, and 12.5% reported salaries of $60,000 to $69,999.

Last year, 43% of respondents reported salaries in the $100,000 to $129,999 range, 26.9% reported earnings of $130,000 or more, and just over 17% reported incomes in the $90,000 to $99,999 range.

While demands are only increasing on nurses in ED leadership positions, one issue that is becoming increasingly important to candidates vying for these jobs is work-life balance. Contino notes that some health care organizations are now referring to the issue as work-life integration.

"Cell phones, email, and text messaging have blurred the lines between on-duty time and off-duty time. People used to have to manage their time, but individuals now have to manage their energy and focus," she says. "This will continue to be a challenge, and it will be interesting to see how the different generations [find] the right solutions that work for them."

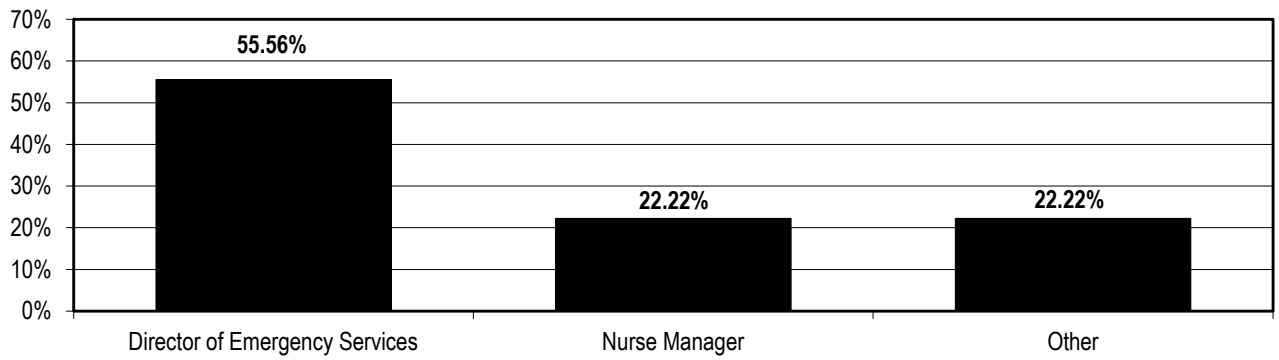
Scarce supply of physician leaders

On the physician side, experts say there continues to be upward pressure on salaries. "If we look at benchmark data from a number of sources, overall ED compensation is being moved upward. And if we look at director-only compensation, there are similar trends there, so just from a quantitative perspective there is definitely a push upward in compensation," explains **Justin Chamblee**, MAcc, CPA, senior vice president at Coker Group, an Alpharetta, GA-based health care business advisory firm that works with hospitals to devise effective compensation programs. "We don't only see that with benchmark data, we see it with our clients as well in terms of them trying to find qualified candidates to lead EDs in this highly volatile health care environment."

Ellis "Mac" Knight, MD, MBA, FACP, FACHE, FHM, senior vice president, hospital operations strategic services, Coker Group, offers that one reason behind this upward pressure is the unique position that emergency medicine holds in most hospitals and health systems. "[Emergency department leaders] are called on to not only do all the traditional things with regard to the ED, but also manage much of what happens with regard to access, quality, and patient flow," he says.

Also contributing to the upward pressure on ED physician leader salaries is the issue of supply of demand. "I have seen strong evidence that more and more organizations are having an increasingly difficult time finding good, qualified candidates for these positions," says Knight.

What Is Your Current Title?



William Cole, MD, FACEP, the chief executive officer of Premier Physician Services, based in Dayton, OH, concurs with these observations, noting that younger emergency physicians seem much less interested in taking on the additional responsibilities that ED leadership requires than their baby-boomer colleagues. "[Younger physicians] tend to be much more interested in just doing the clinical time, so it is much more difficult to find good leaders at individual sites than it was five years ago. And [this problem] is only getting worse," he says.

Help wanted: Management expertise

Driving this trend are increased responsibilities for physician leaders, explains Cole. "In the past, it was all about quality and hitting the metrics in terms of getting people through and making sure that we were covering the core indicators," he says. "Now there is an expectation that as a leader you are going to make sure that people are doing all of those things, but there is another layer of metrics on top of that."

Of particular importance to hospitals: all the indicators pertaining to the patient experience, says Cole. Hospitals also want their physician leaders to be far more engaged with hospital operations than they have been in the past. "They want [medical directors] to lead from the front and set an example, and they also want leaders who are willing to hold their physicians accountable," he says. "It's really about being willing to counsel and mentor people who need that, and being willing to sit down with the laggards and talk about the accountability piece."

Knight agrees that ED physicians with management/administrative capabilities are becoming increasingly important, but he notes that health care organizations particularly prize ED physicians who can use these skills to come up with innovative solutions. "What you've got basically is a huge, fixed-cost enterprise that is being brought to bear on everything that walks in the door, whether it is a level 1 trauma or a sore throat," he observes. "Those physicians who can take that sort of monolithic business enterprise and break it down into microsystems, and learn to manage some of that patient population in a more cost-efficient way with the development of microsystem process design, are really worth their weight in gold, literally. But those sorts of skills are not something that comes naturally to most physicians."

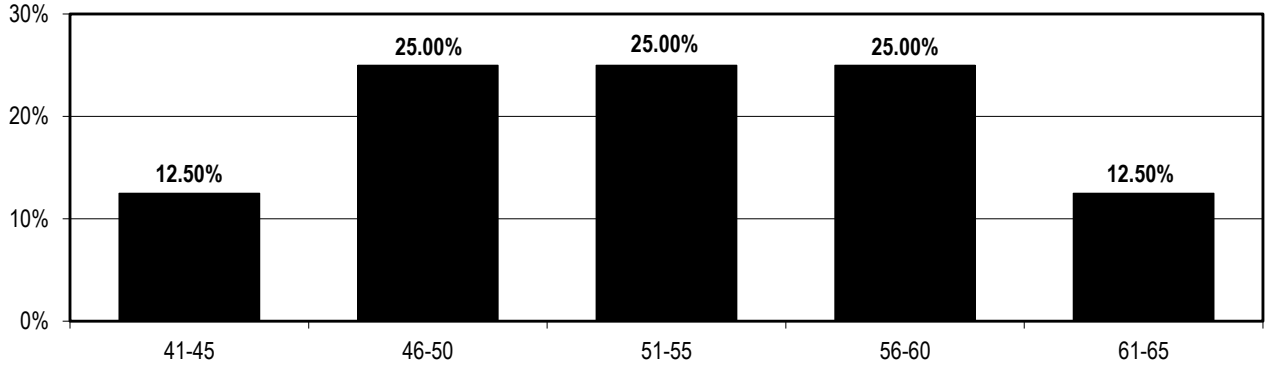
While physicians with added degrees in business or management are certainly in demand for ED leadership positions, hospital administrators are particularly interested in candidates with experience in running an ED effectively, says Knight. However, there is a very limited supply of ED leader veterans. "Emergency medicine is a relatively new specialty, and even those who have been in it for a long time are more adept at the clinical side of things than the business side," he says.

Along with added responsibilities, the 40-hour work week appears to be a thing of the past for ED leaders, according to respondents to this year's survey. Only 12.5% reported working just 41 to 45 hours per week. The typical work week for most respondents ranged from 46 to 60 hours, although 12.5% reported working between 61 to 65 hours per week on a regular basis.

Value-based care drives incentives

Increasingly, compensation packages for ED leaders are including an array of incentives linked with

How Many Hours Per Week Do You Work?



performance metrics. These are typically centered around value-based initiatives, explains Chamblee. "The incentives that we are seeing are much more throughput-focused, efficiency-focused, economic-focused, and quality and patient-satisfaction-focused," he observes.

For instance, Chamblee recalls how one large ED designed an incentive package to drive improvements in all of the key areas that enable an ED to operate effectively in the current health care environment. The package, which applied to physician leaders, stipulated that:

- 20% of their incentive was tied to quality;
- 21% of their incentive was tied to productivity;
- 20% of their incentive was tied to throughput;
- 9% was tied to patient satisfaction;
- 30% was tied to internal group goals, such as various compliance initiatives and meeting attendance.

In Cole's experience, hospitals are placing much more emphasis on patient satisfaction than they have in the past. "The metric of patient satisfaction or patient experience is becoming the most important metric for hospital leadership. We hear the most about this metric," he says. "It is not because they don't care about quality. That's not it at all. I think it is because we are already providing very high quality care with good patient safety, so now we have to move on to different areas."

These shifts toward incentive-based pay will likely intensify in the coming months, according to Chamblee. "I don't think we will see a lot of change in terms of what the incentives are focused on, but there will be a heightened emphasis on them, and more drilling down into specific metrics, as health care organizations get better at providing incentives on value-based care," he says.

Such trends will likely open up more opportunities for emergency physicians to receive incentive-based pay, adds Chamblee. "We recently worked on a commercial shared savings arrangement, and as part of the incentive distribution plan, there was a specific bucket of incentives carved out for emergency physicians," he says. "The majority [of the incentives] were primary-care focused, but there was a bucket carved out for the ED physicians because of the integral role they play in driving the quality of care, and the foundational level of care that they provide for the panel of patients that were in question."

Further, as demand for care increases under health care reform, Knight anticipates that hospitals will rely even more broadly on the skills and ingenuity of physician leaders in the ED. For instance, he notes that many health care organizations are already experimenting with new ways to leverage the ED to improve care transitions, and they are also using EMTs in new ways.

However, there is no question that some organizations are much more in sync with the coming reforms than others. "The more sophisticated and advanced health systems are definitely asking something different of their ED physicians than the ones who are not as far down the value-based care curve," explains Chamblee. "As health systems change their thought paradigm on how they deliver care, the responsibilities of their ED leaders will change alongside that." ■