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INSIDE

RELIAS MEDIA

Pilot Program in Pennsylvania Prompts EDs to Invest in Care Coordination

Following Maryland's lead, Pennsylvania has become the latest state to test the waters of global budgeting. Under this model, rather than operating under fee-for-service, hospitals receive a fixed monthly payment that is based on historical revenue. The approach is intended to incentivize value over volume. It generally pushes hospitals and EDs to be much more judicious in their decisions regarding inpatient hospitalization.

Like Maryland a few years ago, Pennsylvania is beginning its foray into global budgeting with its rural hospitals, many of which have been operating at a loss or with small operating margins, according to the Pennsylvania Department of Health. The move to a global budget is designed to give these hospitals a stable revenue stream and to preserve healthcare access for rural communities.

However, if what happened in Maryland is any guide, what this transition means for the EDs is a bit of a mixed bag, according to investigators who are monitoring the impact of global budgeting on emergency care in Maryland. On the positive side, there is a fresh supply of capital to invest in care coordination resources. However, there is no denying that more is expected from emergency providers under this model. For instance, borderline patients who might otherwise be hospitalized under fee-for-service models instead tend to receive more intensive services in the ED prior to discharge back into the community. This can mean longer lengths of stay (LOS) in the ED, potentially leading to crowding.

Nonetheless, Maryland, which now uses a global budget approach statewide, has shown a positive financial impact from the model even as it continues to refine its approach. Officials in Pennsylvania are hopeful that it can bank the lessons learned from Maryland and reap similar, if not superior, results from their program.

Shift Focus to Value

The Pennsylvania project is part of a five-year Medicare demonstration program. The Center for Medicare &

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Medicaid Innovation (CMMI) has provided the state with $25 million to develop the Rural Health Redesign Center (RHRC), an entity that will be focused on supporting rural hospitals that are participating in the effort. The Pennsylvania Department of Health states that a rural health redesign office is currently working closely with each participating hospital to develop a plan that will help facilities transition away from a payment system based on volume to one based on value. Technical assistance provided is being tailored to the needs of each specific hospital. Further, the department notes that the payment model encourages investments that will improve the overall health of the community and will emphasize providing the right care in the proper setting as opposed to providing sick care and receiving payment based on the number of people who present.

Medicare, Medicaid, and several private insurers have indicated that they are participating in the model, and more payers are expected to come on board in the coming weeks. One difference from the approach used in Maryland is that in the Pennsylvania pilot, the state will not be establishing the rates for payers, and payers will not have to disclose their rates publicly. In Maryland, all payers, public and private, adhere to the same rates, which are established by the state and publicly disclosed.

At press time, there were five rural hospitals participating in the Pennsylvania Rural Health Model, including Geisinger Jersey Shore Hospital in Jersey Shore, PA, a critical access hospital covering a two-county service area in the center of the state. Here, the shift to a global budget model means that while the ED will continue to respond to patients who present with strokes, heart attacks, and other acute care needs, there is now a stronger focus on patients who could benefit from better care coordination.

Boost Referrals

Consequently, one of the initial steps the hospital has taken under the new payment model is to hire a care manager for the ED. "One thing we want our care manager to do in the ED is to screen the patients who are there and find those who might benefit from outpatient case managers who can help to coordinate care, educate patients, monitor their chronic diseases, and perform medication reconciliations when the patient transitions from the ED back to the ambulatory care setting," explains **Tammy Anderer**, PhD, MSN, CRNP, the chief administrative officer for Geisinger's north-central region.

Once these patients are identified, the care manager can perform a warm handoff or refer patients to an outpatient case manager, she adds. "We are very focused on introducing needs the patient may have after an ED or an inpatient visit early during the planning for discharge," Anderer notes. She adds that the hospital is putting resources in place to respond to these needs. "For example, for those patients who have chronic lung diseases, we now have a health coach on our team who can meet with them after discharge and help them with their tobacco cessation efforts," she explains. "For patients who have diabetes … we are making sure we get them connected with outpatient clinical nutrition [experts] who can help them see food as health and assist them in making choices and plans so that their disease is better managed." Anderer acknowledges that these are

not new ideas in healthcare, but the new payment model is incentivizing and enabling the hospital to make sure that such steps are hardwired. However, Anderer stresses that the clinician remains the central player in determining what services are required. "We do an interdisciplinary round twice a day on the patients who are in the hospital, and we review their care needs," she says. "It is actually the clinician who speaks to the patients [about any needed services] and places orders for them. It may be the care manager who actually helps get the connections made, but the clinician is involved every step of the way."

EXECUTIVE SUMMARY

A more pronounced focus on care coordination is taking shape in the EDs at a cadre of rural hospitals that are participating in Pennsylvania's new global budgeting pilot. The pilot is designed to provide a more secure revenue stream to hospitals that have been operating at a loss or with very small operating margins. However, it also signals a strong shift away from the traditional focus on volume toward value-based care and population health. While the new pilot is still in the early stages of implementation, hospital administrators have much to learn from Maryland, which now has several years of experience with a state-wide global budget system. There, emergency providers and their patients have reaped dividends from new investments in care coordination, but there also have been downsides in terms of crowding, ambulance diversions, and longer lengths of stay.

Establish a Blended Team

For patients who present for care to the ED and do not have a medical home where they can receive follow-up care, the ED-based care manager will attempt to connect them with a primary care provider (PCP) before they leave. "If the patient would like a PCP who is in the Geisinger system, we can make that appointment right then and there so they have that follow-up appointment scheduled with a new provider," Anderer says. Indeed, the Pennsylvania Department of Health stresses that ensuring access to primary care will play a key role in aligning incentives within the new payment structure.

Since the switch to global budgeting began on Jan. 1, it is still early, but Anderer notes that one of her first priorities has been to strengthen the hospital's collaborative ties with drug and alcohol recovery resources in the community.

"We have some of those resources available to us today. Not everything in this model is a new start for us, but it does involve maximizing the connectivity between all of these [resources]," she says. "We at Geisinger have an evolving model to do those warm handoffs to drug, alcohol, and behavioral health services. That model has started and will only strengthen by increasing the presence of social workers, for example, in our ED."

Anderer notes that the hospital has made a strong investment in care management, which includes a blended team of social workers and registered nurses. "The social workers had to have a strong background [in behavioral health], so they may be best suited to [interacting] with that patient population. Registered nurses might be a better fit for patients with heart failure or chronic lung disease," she says. "We deliberately made an investment in a blended model so that we have both types of expertise in our hospital."

Maintaining added resources for things like care management clearly is a boon, but finding the trained staff to hire has been a challenge, Anderer acknowledges. "It is no surprise to anyone that there is a shortage of registered nurses in the United States," she adds. While it is too early to gauge what the impact of this alternative payment model will be in Pennsylvania, investigators have been closely following Maryland's global budgeting approach since as early 2011 when that state piloted global budgeting in seven rural hospitals.

"The reason for implementing this in rural hospitals first as a pilot is because they don't have overlapping service areas, so implementation is just logistically much simpler," explains **Jessica Galarraga**, MD, MPH, an attending physician in the department of emergency medicine at MedStar Washington Hospital Center, and a researcher at the MedStar Health Research Institute in Washington, DC. "The moment you start involving hospitals with overlapping service areas, to be fair you have to implement the model across all the hospitals."

In 2014, that is exactly what Maryland did, expanding the global budget approach statewide. Now, the state has five years of experience with the large-scale implementation of the model. This has resulted in increasing pressure on EDs across the state to admit less often and discharge more frequently as hospitals strive to meet certain revenue targets each year, Galarraga observes. "What we are seeing is that a lot of these

gray area or borderline cases such as patients with COPD or CHF [congestive heart failure] that we would typically admit [in the past] we are now keeping them in the ED longer, sometimes increasing the intensity of services provided … and engaging more in care coordination, which I think is a positive to ensure safe transitions," Galarraga explains. "Care coordination takes time, so this is another factor in addition to sometimes increasing the intensity of services provided in the ED that can contribute to [longer] lengths of stay in the ED."

Investigators also have observed that ambulance diversion rates across the state have gone through the roof since the global budget model was implemented statewide in 2014.

"Further research is required to sort out what is driving the increase in ambulance diversion, but it is suspected that a part of what is contributing to the increase is what we are seeing in ED lengths of stay," Galarraga notes. "Qualitatively, a lot of EDs are reporting that boarding is an issue [as well] because there isn't an incentive to get patients up to the hospital under global budgeting."

Customize Solutions

There has been considerable diversity in how hospitals have responded to the different incentives of the global budget approach. "Some hospital administrators are very motivated to invest in care coordination staff for the ED," Galarraga explains.

For instance, some hospitals are increasing the hours of care coordination coverage to evenings and weekends, which has been helpful to emergency providers.

"We are so busy caring for a lot of sick patients that it is often not feasible to sit down and schedule appointments for patients or to do many of the things necessary to facilitate a safe discharge and avoid a hospital admission," Galarraga laments. "The care coordination staff members have been doing a lot of great work with focusing on creating follow-up appointments for a lot of these gray area cases that might be appropriate for discharge if they are able to be seen by providers within the next two days."

Galarraga adds that she has seen many innovative interventions and changes that have helped EDs meet the care coordination challenges that they now face under global budgeting. In some cases, care coordinators are directing patients to evaluations for physical therapy or occupational therapy needs while they are still in the ED. If patients meet the criteria, care coordinators are arranging for such services in the home prior to discharge. However, hospitals across the state are not implementing this type of a response uniformly. Each hospital is free to respond to global budgeting in a way that administrators deem most advantageous.

However, it is clear is that global budgeting has resulted in a reduction in ED-based admissions, according to a new study by Galarraga and colleagues. They assessed the impact of the model on ED-based admissions from January 2011 through December 2015 within a single health system that operates hospitals in Maryland as well as in Washington, DC, where global budgeting is not in effect.[1]

"What this study demonstrated is that there was a shift from inpatient to observation stays [in the Maryland EDs]," Galarraga says. "There was still an overall decrease in hospital stays that essentially exceeded that shift. There was still a net decline in hospital stays."

As hospital admission rates have decreased, there has been a corresponding increase in non-hospital-based spending under the global budget model. This was expected to some degree, Galarraga notes.

"If you are shifting care toward non-hospital settings, then you would expect for there to be some shift, but it has really ballooned more than we anticipated to the non-hospital side," she says.

Consequently, the focus of phase two of the global budget model is to rein in the total cost of care across the entire care continuum, including non-hospital care. The challenge here is that Maryland's Health Services Cost Review Commission (HSCRC), which establishes the rates all payers charge for services in the state, only has statutory authority over hospital payments, Galarraga observes.

"The levers [the HSCRC] uses to influence change in care delivery are purely hospital-based. It doesn't have authority over individual providers or non-hospital-based care settings," she says. "The way [the commission] is trying to align the non-hospital sector with the incentives of the model is by creating a total cost of care metric."

Although the metric only applies to Medicare, hospitals must concern themselves with the care that is provided to their assigned Medicare patients after they are discharged.

"The only way to do that is for hospitals to leverage their referral practices … and to potentially engage in agreements, for example, with post-acute care providers to make sure they are delivering care in an efficient way," Galarraga notes. "Ideally, what we will see is hospitals creating partnerships with non-hospital providers to provide some

shared savings agreements so that those non-hospital providers have the same incentives as the hospitals do to improve outcomes and reduce the total cost of care."

While the HSCRC is creating incentives designed to push hospitals toward efficiency and value, the commission is leaving it up to the facilities to figure out solutions, Galarraga explains. "We are definitely seeing variations among some health systems and different hospitals on how they are responding," she says. "Some are much more successful than others, but [the HSCRC] is letting the hospitals figure out how to really align the incentives with the non-hospital providers on their own."

Learn From Pioneers

What has been the reception by the emergency medicine community in Maryland to the global budget approach and all of the associated changes? Galarraga observes that as with any big shift, one will find some providers who do not like it at all while others are totally enthusiastic, but both views tend to be in the minority.

"The majority [of emergency providers] see the positives with the efforts toward more care coordination, but there is also huge sentiment that this definitely increases the burden of work for ED providers. It certainly is increasing the potential risk for their patients … when ED throughput is compromised," she explains.

These are areas that require investigation, and Galarraga is in the process of doing just that with her research colleagues.

"We are taking a look at the variation in ED care coordination [practices] that are taking place across the state and also the outcomes associated with ambulance diversion and crowding," she says. In the meantime, while it is important to note that Maryland's pioneering approach to global budgeting differs in some respects from the Pennsylvania model, Maryland has left plenty of bread crumbs for its neighbor to the north to follow.

"I suspect that CMMI is seeing Pennsylvania as the next full statewide global budget model," Galarraga observes. "[Pennsylvania] is following the same footsteps of starting with a rural pilot because it is easier to implement with non-overlapping service areas. If all goes well with the pilot, [regulators] will likely expand it to a statewide global budgeting model." ■

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As Cannabis Use Proliferates, Investigators Probe What Brings Patients to the ED With Adverse Drug Events

Colorado pioneered the legalization of cannabis for recreational use in 2014, and the idea has caught on elsewhere. Today, 33 states plus the District of Columbia have enacted laws legalizing the use of marijuana in some form. This means there is more opportunity for people to experience adverse drug events from cannabis use, and to end up in the ED as result.

Although such patients are not overwhelming EDs in Colorado or elsewhere, it is becoming increasingly important for frontline providers to understand how to recognize and manage these cannabis-associated visits. However, with research in this area still relatively young, emerging findings continue to offer fresh guidance. For instance, in one new study in Colorado, investigators found that while edible forms of cannabis make up only a small percentage of sales of cannabis products in that state, they are associated with more acute symptoms than the inhaled forms of the drug in patients who present to the ED. This is just one of several intriguing findings from a rich set of data that researchers are pouring over with the expectation they will unearth other important nuggets in the near future.

Treat the Symptoms

Patients with cannabis-related complaints comprise a small percentage of the overall population of patients who present to the ED at the University of Colorado Hospital in Aurora; however, providers here see such patients daily, according to **Andrew Monte**, MD, an associate professor of emergency medicine at the University of Colorado School of

Medicine and an emergency physician in the hospital's ED. "We are talking about one or two out of 300 patients every day," he explains.

Most commonly, patients will present with symptoms of intoxication, but it is rarely just due to cannabis, Monte observes. "Usually, this will involve multiple drugs, of which cannabis is one," he says.

Further, in patients who use cannabis heavily, providers see a lot of gastrointestinal (GI) symptoms, specifically a condition referred to as cannabinoid hyperemesis syndrome, which involves a cyclical vomiting condition. "The GI symptoms are the second most common symptom that [cannabis users] have" following cannabis intoxication, Monte says. However, Monte reiterates that it tends to occur only in patients who use cannabis every day or multiple times a day.

The third most common cannabis-related problem that brings people to the ED is acute psychiatric distress. "This may involve acute psychosis, acute anxiety, acute panic attacks, or even suicidality and depression," Monte notes. Managing patients with cannabis-related problems typically involves treating the symptoms, Monte states.

"For example, in patients [who are] vomiting, we very often try anti-nausea medicines, although in patients with [cannabinoid hyperemesis syndrome], the anti-nausea medicines are not effective. We treat those patients with antipsychotics," he explains. "That seems to be most effective, relatively low-dose antipsychotic medicines for the nausea." Typically, patients who are vomiting frequently will receive fluids, Monte adds.

In patients with psychosis or anxiety, sedatives or benzodiazepines are administered to help them relax. "Then, sometimes, antipsychotics [are given] as well if patients are experiencing active hallucinations that are particularly problematic," Monte notes.

Less commonly, patients who use cannabis will present with cardiovascular symptoms, such as cardiac ischemia, an arrhythmia, or even a heart attack, Monte explains. Consequently, he observes that patients exhibiting cardiovascular symptoms should receive an ECG. "You shouldn't be blowing them off, thinking that it is just the pot," he says. "They do need an ECG to make sure they don't have cardiac ischemia or an arrhythmia."

Note Impact of Edibles

Although most cannabis-related complaints are associated with inhaled versions of cannabis, new research by Monte and colleagues revealed that edible forms of cannabis are associated with more acute symptoms. In a review of ED visits that occurred between Jan. 1, 2012, and Dec. 31, 2016, researchers found there were 9,973 visits that were at least partially attributable to cannabis. Of these, 238 cases involved edible cannabis. However, researchers found these patients were nearly twice as likely (18% vs. 10.9%) to exhibit acute psychiatric symptoms vs. patients who inhaled cannabis. Further, patients who ingested edible cannabis were more than twice as likely (8% vs. 3.1%) to present with cardiovascular symptoms vs. patients who inhaled cannabis. On the other hand, GI symptoms were more prevalent in patients exposed to inhaled versions of cannabis (48% vs. 6.6%).[1]

Also, Monte and colleagues found that overall, cannabis-associated ED visits tripled during the study period, but that visits linked to edible forms of cannabis were 33 times higher than investigators expected, considering the fact that surveys suggest edible cannabis comprised only 0.3% of the total weight of tetrahydrocannabinol (THC), the primary active ingredient in cannabis, in cannabis product sales during this period.

Why would the edible forms of cannabis produce more intense or

EXECUTIVE SUMMARY

Investigators are beginning to unearth important findings from a rich data set regarding cannabis-related ED visits at a large, academic medical center in Colorado. As states move to legalize recreational and/or medicinal cannabis use, the information is important to helping frontline providers understand how to recognize and treat such patients.

- Investigators note the most common symptoms that brought cannabis users to the ED over a five-year period were intoxication, a cyclical vomiting condition, and acute psychiatric distress, such as psychosis, anxiety, panic attacks, or even suicidality and depression.
- In a small number of patients, cardiovascular symptoms were observed. These included cardiac ischemia, an arrhythmia, or even a heart attack.
- While users of edible products made up just a small percentage of cannabis users who presented to the ED, researchers found that their symptoms tended to be more intense or acute than for users of inhaled cannabis.

acute symptoms? Monte observes that investigators have not pinned down a precise answer, but he suspects that several factors are involved. For instance, Monte notes that when a cannabis product is ingested, the body metabolizes it so that the drug can cross the blood-brain barrier more effectively. Another potential factor involves the kinetics of the drug.

"Essentially, when someone smokes cannabis, they start to feel the effects right away. The symptoms peak in about 30 minutes. Then, [the drug] is cleared in two to three hours," Monte explains. "However, when someone eats a cannabis product, it doesn't even start to take effect until about a 30-minute period [has elapsed]. It doesn't peak until two to three hours later, and then it can remain in the system for 12 hours."

The delayed onset of the drug effect from an edible product provides more opportunity for someone to come to the ED if they are experiencing an adverse drug event, Monte suggests.

"If someone smokes cannabis, an [adverse effect] may only last a few minutes. Then, things settle down, they feel better, and may conclude they don't need to go to the ED. But in someone who eats a cannabis edible, the effect may last hours. That puts them at risk to do something that they may regret, or just the symptoms may be so worrisome for so long that they will come to the ED."

One other factor that may play a role: Considering that it takes longer to feel the effects of an edible cannabis product, people may consume more of the product, producing what Monte refers to as a stacking phenomenon.

Make the Diagnosis

From a clinical standpoint, providers cannot necessarily confirm that cannabis is the source of symptoms or illness. However, they can rule out other potential causes for symptoms, Monte observes. "We get pretty good at understanding and diagnosing based upon constellations of symptoms," he says.

For instance, providers know that the cyclical vomiting syndrome occurs in people who smoke very heavily, and that patients will experience these episodes periodically. The history will help clinicians confirm the diagnosis in concert with workups that are negative, Monte explains.

Also, at least in Colorado, patients are very open about their use of cannabis, which is helpful in pinning down a diagnosis. "Cannabis is legal and it has been destigmatized for many, many years here now," shares Monte. "Patients are fine with talking about it."

Further, it is not difficult to distinguish intoxication from cannabis from that of alcohol or other drugs. For example, with alcohol intoxication, there tends to be far more issues with coordination, Monte notes.

"We can get some level of that with opioids as well because they are sedatives, but there is a very well-defined toxidrome [or distinguishing list] of what the symptoms are when people have actually taken too many opioids."

Take a Good History

Monte's advice to frontline providers in states that may be new to legalization, and are just beginning to see larger numbers of cannabis-associated ED visits, is to focus on taking a good history. For example, find out how often patients use cannabis, what types of products they use, and what percentage of THC the products contain. Secondly, develop an understanding of all the conditions that cannabis can cause, he says.

"Clearly, [cannabis] is associated with this cyclical vomiting syndrome in heavy users, and it is an intoxicating agent," Monte reiterates. "It also doubles the risk of motor vehicle collisions. People need to understand that they shouldn't be driving after utilizing [cannabis]."

Monte adds that both inhaled and edible cannabis products can cause hallucinations and acute psychiatric decompensation, facts worth considering when patients arrive with psychiatric exacerbations. "It is important to understand what their exposures are in order to potentially mitigate their symptoms going forward," he says.

Further, stay tuned for new findings because there is much more to learn about cannabis in the coming months and years. Indeed, Monte suggests he and his research colleagues have only just begun to pull important information from

a rich batch of pertinent data in Colorado. "There needs to be more characterization of the cardiovascular [symptoms], and there needs to be more characterization about neurologic conditions such as seizures," Monte notes. "Many people believe cannabis can be an effective treatment for some seizure conditions. However … in our data set, we have several patients that have used large amounts of cannabis and have then had seizures."

As more states move to legalize cannabis use, it is important to produce additional guidance so that medical providers are knowledgeable and prepared.

"When you get too much of something, it can be dangerous and cause adverse drug events," Monte observes. "We just need to start to educate physicians as well as the public about what the risks are in order to help us mitigate some of those risks." ■

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EDs, Community Partners Play Central Role in Slashing HIV Diagnoses in San Francisco

The fact that the Trump administration is getting behind a new effort to end the HIV epidemic is welcome news. However, it is worth noting that some communities are way out in front of this effort in remarkable ways. In particular, an initiative that began five years ago in San Francisco has resulted in a dramatic reduction of new HIV diagnoses in the region. For instance, in the first half of 2018, there were just 81 new HIV diagnoses, according to the latest data, putting the city on track to lower the number of diagnoses to a level not seen since the epidemic began in the 1980s. Further, investigators report that the number of deaths attributable to HIV has declined by more than 50%.[1]

EXECUTIVE SUMMARY

Emergency providers have played a strong role in helping San Francisco drastically reduce the number of new HIV infections as part of the city's Getting to Zero (GTZ) initiative, which began five years ago. In particular, the ED at Zuckerberg San Francisco General Hospital (ZSFGH) has identified 10% of all new HIV infections in the city. Then, working in partnership with Ward 86, the nation's first HIV clinic (located on the ZSFGH campus), these patients and their partners have been connected to care quickly, greatly diminishing subsequent transmissions. It is a model that has been duplicated across the city to great effect.

- In the first half of 2018, there were 81 new HIV diagnoses, according to the latest data, putting San Francisco on track to lower the number of diagnoses to a level not seen since the epidemic began in the 1980s.
- The GTZ effort is attempting to achieve 90-90-90 goals: By 2020, 90% of those infected with HIV will be aware of their status, 90% of those diagnosed with HIV will be receiving sustained antiretroviral therapy (ART), and 90% of those receiving ART will be under virologic control.
- To reach these targets, HIV testing and linkage to care from EDs and other frontline providers are a big part of the GTZ plan.

The city's success in addressing the HIV epidemic is largely attributable to the collective efforts of Getting to Zero San Francisco (GTZ), a multisector consortium that aims to reduce HIV infections, deaths, and stigma to meet aggressive 90-90-90 goals, explains **Susa Coffee**, MD, chair of the GTZ's RAPID committee, which focuses on quickly connecting patients diagnosed with HIV to antiretroviral therapy (ART).

As described by UNAIDS in 2017, the 90-90-90 goals establish that by 2020, 90% of those infected with HIV will be aware of their status, 90% of those diagnosed with HIV will be receiving sustained ART, and 90% of those receiving ART will be under virologic control. *(Learn more at: http://bit.ly/2Kf3FZB.)*

To reach these targets, HIV testing and linkage to care from EDs and other frontline providers are a big part of the GTZ plan. "Emergency departments also serve as important sites where re-engagement in care can be facilitated for people with known HIV who have dropped out of care," observes Coffee, a professor of medicine in the Division of HIV, Infectious Diseases, and Global Medicine at the University of

California, San Francisco (UCSF) and Zuckerberg San Francisco General Hospital (ZSFGH).

Such functions are particularly important for the safety-net population served at ZSFGH, which includes many patients who are unlikely to present to HIV testing sites, Coffee notes. "Since the Getting to Zero initiative began in 2014, HIV testing performed in the ZSFGH ED has comprised roughly 10% of new HIV diagnoses in San Francisco," she observes.

Establish Links to Treatment

Efforts to expand HIV testing in the ED at ZSFGH have been supported largely by its strong working relationship with the UCSF/ZSFGH Ward 86 Clinic, where the RAPID team works proactively to connect with all patients who test positive for HIV in the ED. The ZSFGH clinical laboratory will call a designated RAPID pager for every HIV-positive result that it obtains. "Then, the RAPID team will contact the patients, whether they are still in the ED, admitted to the hospital, or discharged to home, to link them into care," Coffee explains. "For outpatients, the RAPID team tries to schedule each person for a same-day or next-day RAPID appointment in the clinic."

While staff members in the ED also are encouraged to contact a dedicated RAPID pager if they are aware of a patient with a new HIV-positive test result, the burden of notification and follow-up is removed from them, Coffee shares. "This has resulted in significantly more HIV testing by ED providers and a higher linkage-to-care rate for newly diagnosed people with HIV," she says. "Emergency staff are also encouraged to refer high-risk, HIV-negative individuals to the RAPID team for PrEP [a medication that can prevent HIV infections when taken prophylactically] and other HIV prevention services."

Provide HIV Testing

Interestingly, although several hospitals in large urban locations automatically perform HIV tests on all patients who present to the ED and have a blood draw for any reason, the ED at ZSFGH takes a different approach. Here, nearly half of patients who present for care do not require a blood draw for their stated complaint. Consequently, it is up to each clinician to determine whether a patient should undergo testing based on their presentation, symptomology, and history, explains **Malini Singh**, MD, MPH, associate clinical professor of emergency medicine at UCSF and vice chief of emergency medicine at ZSFGH. "When we take a general history … there are multiple questions about sexual practices and drug use, and those are all triggers to think about when ordering an HIV test," Singh notes.

Further, emergency providers are encouraged to test all patients who are admitted to the hospital, patients who do not have an HIV test result indicated in their clinical record, and patients who have had any possible exposures or risk factors since their last negative HIV test result. "These recommendations are posted in ED work areas and are available online with information on risk factors for HIV infection and signs/symptoms of acute HIV," Coffee notes.

The hospital lab conducts routine HIV testing every two hours, seven days per week. For samples with reactive results, differentiation tests are conducted every day (except Sunday). The lab will notify the RAPID team of any positive HIV tests. "This is external to us in the ED. [The RAPID team] will call us, even before we know about the test results sometimes … and ask if we want them to come down [to the ED] and talk to the patient or counsel the patient about his or her new HIV diagnosis," Singh notes. The RAPID team, also referred to as the PHAST (Positive Health Access to Services and Treatment) team, is available to discuss any post-exposure or protective medicines that a newly diagnosed partner might consider, Singh adds.

"We have a very active PHAST team through Ward 86 that is involved with patients when tests return positive, and this is 24/7. Any lab notification for anyone who has been tested, whether the tests were positive or negative, the PHAST team knows about them," Singh notes. "The reason why the PHAST team is very instrumental for us is because they [work with] the patients with a very team-based approach where it is not just about medications. It is about lifestyle counseling and partner counseling as well."

Further, there is regular communication between the PHAST team and emergency providers regarding testing and detection rates, and how the ED compares to other HIV testing sites. "We have a real partnership with them," Singh shares.

Partner With Care Resources

Another focus of the GTZ initiative is to increase the number of people who are taking PrEP. Investigators report that this number

has grown from 4,400 when the GTZ initiative began to more than 16,000 in 2017. The ED plays a role in this effort, too, although emergency providers typically do not write prescriptions for PrEP. Instead, they will refer patients directly to Ward 86, which is located on the ZSFGH campus and provides drop-in hours for patients.

"There is no formal referral process to get patients over there. [The clinic is] always open to having patients drop in at any time, which is remarkable," Singh says. "That has been really great for us."

Singh credits Ward 86, which was the nation's first HIV clinic, and the PHAST team with contacting the ED and helping change provider behaviors when it comes to testing procedures. "I am standing on the shoulders of giants who actually started [ED-based HIV testing] when it was not popular and not considered to be emergency medicine," she explains. "Recognizing that … the intervention is extremely important to the times has been something that we have had to learn, but I do think that the generation of emergency physicians here get it, which is why this is snowballing into other things like giving Narcan to patients who are addicted to opiates."

How can other hospitals and communities replicate the work happening in San Francisco? "I think the biggest difference for us in the ED, and why [HIV care] is so seamless, is we partner with a lot of HIV advocates and people in the community who want to help bridge these patients … into long-term management," Singh advises. "Making those relationships real and sustainable is super important for this work to continue."

Singh adds that the culture of emergency medicine has begun to change. "Emergency physicians of today understand … that it is important to recognize these high-risk patients early, and that early treatment makes a difference," she says. "Of course, offering options to their partners makes a difference as well." ■

REFERENCE

1. Kirby K. Aiming to end San Francisco's HIV epidemic. *Lancet HIV* 2019;6:e77-e78.

Trump Administration Outlines Steps Aimed at Eliminating HIV Epidemic

Noting that only about half of those living with HIV in the United States actually know they have the disease, and that eight in 10 of all new HIV infections come from people who are not receiving treatment for their disease, the Trump administration has pledged new resources toward addressing these gaps and finally bringing the HIV epidemic to an end.

In a CDC Vital Signs press briefing on March 19, U.S. Surgeon General **Jerome Adams**, MD, MPH, made the case for why the timing is right for a concerted effort against this disease, stating that the right data and the right tools are in place to achieve success.

"We now know that achieving an undetectable viral load means that it's virtually impossible to transmit the infection to a partner," he said. "We also have pre-exposure prophylactics, one pill a day, that can prevent the acquisition of HIV from an untreated partner up to 97% [of the time]."

The administration is allocating $30 million toward the effort this year, and it is asking Congress to provide an additional $291 million in 2020. However, Adams noted that action against the disease will begin immediately with a phased-in approach. "Over the next five years, we will target the 48 highest-burden counties in the United States," he said. "At the end of five years, we expect to have reduced new HIV infections in America by 75%."

At this point, efforts will expand to include counties with the next-highest burden of HIV, and by year 10, health officials expect to have achieved a 90% overall decrease in new HIV infections, according to Adams. He also outlined the tactics included in the new initiative:

- Diagnose people with HIV as early as possible following infection;
- Treat HIV rapidly and effectively to achieve sustained viral suppression;
- Protect people at risk of acquiring HIV with intervention methods such as PrEP, a medication that can prevent HIV infection;
- Detect and respond rapidly to growing HIV clusters and new HIV infections.

During the same press briefing, CDC Director **Robert Redfield**, MD, noted there are currently about 39,000 new HIV infections diagnosed in the United States each year, and that after five years of decline, this number plateaued in 2013. "This is because effective prevention and treatment options are not adequately reaching all who

need them," he said. "The majority of new infections occur among gay and bisexual men, with black and Latino gay and bisexual men bearing a disproportionate number of those infections, especially among those between the ages of 25 and 34."

Redfield pledged that the CDC will work closely with other health agencies as well as state and local authorities to help ensure progress is made.

"We will establish teams to eliminate HIV infection in high-burden areas, and provide important operational support," he said. "We will also work with HRSA [Heath Resources and Services Administration] and state and local health systems and agencies to increase the capacity to diagnose HIV infections in high-burden areas. We will do this by implementing systems to increase routine HIV testing in clinical settings and to reach more people with nonclinical testing options."

Redfield added that the CDC will work with local authorities to develop comprehensive prevention services, and that the agency will accelerate the deployment of effective cluster and detection response teams to identify and respond quickly to clusters of new HIV infections.

The administration's approach will require collaboration among federal agencies as well as state and local health authorities and faith-based partners, Adams noted.

"This is going to be a whole-of-society initiative," he said. "We have an unprecedented opportunity to end the HIV epidemic in America, and that is why the time to act is now." ■

As Measles Cases Mount, Frontline Providers Urged to Remain Vigilant

Emergency providers need to remain on their guard for potential cases of measles. The CDC says that as of May 24, 940 measles cases had been confirmed in 2019, the most cases reported in the United States in 25 years.

While cases have been confirmed in 26 states, the largest outbreaks have occurred in New York and Washington, although public health officials in Washington have indicated that the outbreaks there have been contained. The CDC notes that most cases have involved children who have not been vaccinated, and several cases have been traced to people entering the United States from other countries.

To address the outbreaks, the CDC has implemented an incident management structure within the National Center for Immunization and Respiratory Diseases. Public health officials are encouraging frontline providers to take note of the agency's guidelines for recognizing and preventing measles. *(Learn more at: http://bit.ly/2EJaC1n.)* Further, since misinformation about vaccines continues circulating, the CDC has developed a toolkit that includes resources that physicians can use to help reinforce their discussions with patients about measles and vaccines. *(Learn more at: http://bit.ly/2EIft2Y.)*

Emergency providers need to be particularly attuned to potential measles cases, as the disease is highly contagious. In some cases, ED staff and other frontline providers are asking patients who think they may have measles to call ahead before they arrive for care so that steps can be taken to prevent exposure to other patients or staff who may be vulnerable.

The CDC advises providers to consider measles in any patient who has a fever and a rash. These patients also may exhibit a cough, coryza (a head cold that includes a runny nose), and conjunctivitis. Further, patients should be questioned about whether they have recently traveled internationally or if they may have been exposed to measles in their communities. ■

CME/CE OBJECTIVES

After completing this activity, participants will be able to:

1. Apply new information about various approaches to ED management;
2. Discuss how developments in the regulatory arena apply to the ED setting; and
3. Implement managerial procedures suggested by your peers in the publication.

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CME/CE QUESTIONS

1. **A global budget payment system generally pushes hospitals and EDs to be much more judicious regarding:**

   a. their use of advanced practice providers.
   b. their decisions on inpatient admissions.
   c. their use of ambulance diversion.
   d. referrals to outpatient providers.

2. **In a study of cannabis-related ED visits in Colorado, investigators found that the third most common reason cannabis users came to the ED was:**

   a. cyclical vomiting.
   b. intoxication.
   c. injuries from motor vehicle accidents.
   d. acute psychiatric distress.

3. **Since the Getting to Zero initiative began in San Francisco, HIV testing performed in the ED at Zuckerberg San Francisco General Hospital has comprised roughly what percentage of new HIV diagnoses?**

   a. 2%
   b. 5%
   c. 10%
   d. 15%

4. **According to CDC Director Robert Redfield, MD, how many new HIV infections are reported in the United States each year?**

   a. 39,000
   b. 55,000
   c. 70,000
   d. 92,000