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NOVEMBER 2020

Vol. 32, No. 11; p. 121-132

## Accreditation Program Elevates Pain and Addiction Care in the ED

Long before the COVID-19 pandemic, frontline providers were confronting an epidemic of patients struggling with opioid use disorders (OUD). It appears the pandemic has exacerbated the problem, with rising numbers of opioid overdose deaths.

Recognizing the urgent need for improvement in this area, the American College of Emergency Physicians (ACEP) is rolling out a new accreditation program that is aimed at nudging EDs across the country to up their game when it comes to both the treatment of pain and the way they manage patients who present with OUD.

Called Pain and Addiction Care in the ED (PACED), the program sets benchmarks for best practice in these two intertwined areas while recognizing EDs vary widely in terms of size and the populations they serve.

Program developers are sensitive to the fact that resources are strained in many areas hit hard by the pandemic, but they are nonetheless urging frontline providers to stay open to make long-needed improvements.

“We have to remember that [EDs] are open 24 hours a day for anyone

who comes and sees us. The majority of our patients come to see us for pain,” observes **Alexis LaPietra**, DO, FACEP, chair of the PACED board of governors. “Pain and addiction are rampant. The opioid epidemic is not going anywhere, and it does not have an expiration date. We feel that COVID-19 does.”

### Highlight Best Practice

While treating pain is a bread-and-butter issue for emergency providers, ACEP maintains there is ample room to progress. “We know EDs are good at lots of things, but we also know there is a lot of practice variability from physician to physician,” observes LaPietra, chief of pain management and addiction medicine at St. Joseph’s University Medical Center in Paterson, NJ.

With the opioid epidemic raging, emergency providers must adopt better prescribing habits because they do play a role. “We are not the main prescribers of opioids nationally, but sometimes we are the first place that patients touch down after a painful experience. Sometimes, we can really drive the care they receive based on the medication we give them in the ED,” LaPietra says. “The goal

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*ED Management* (ISSN 1044-9167) is published monthly by Relias LLC, 1010 Sync St., Ste. 100, Morrisville, NC 27560-5468. Periodicals postage paid at Morrisville, NC, and additional mailing offices. POSTMASTER: Send address changes to *ED Management*, Relias LLC, 1010 Sync St., Ste. 100, Morrisville, NC 27560-5468.

GST Registration Number: R128870672.

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[of the accreditation program] is really to elevate bread-and-butter [practice] through evidence, through support like an accrediting body of a national professional organization, and [through understanding] that the department and the hospital should be behind you in this effort.”

For example, LaPietra notes PACED developers do not want one physician who is trying to engage in best practice to feel like he or she does not have the support of executive leadership. Developers also do not want these providers to struggle to access medicines he or she knows can be effective.

“We want hospitals, EDs, physicians, and all frontline staff to understand what is the best-case scenario for these pain management issues,” LaPietra explains. “We all have a united front knowing that we are serving our communities in ... the best way possible with the constant reminder that we need to reduce opioid harms.”

LaPietra stresses opioids remain a vital part of pain management, but providers need to be judicious in prescribing them. “Let’s treat [opioids] like high-risk medicines because they are,” she says. “We cannot live without these medicines. Patients need these medicines, but we should never give them out without appropriate education on the provider’s part and appropriate education for the patient.”

## Reduce Harm

Considering the different characteristics of EDs across the country, it took time to develop the array of accreditation options available through PACED. The board of governors spent three years sifting through the literature, discussing what constitutes best practice, and

determining how the program should be built.

“There is a lot of detail that goes into this, and we wanted to constantly have the focus be on opioid harm reduction,” LaPietra reports. “We wanted opioids to be used, but we wanted them to be used really judiciously.”

Pain and addiction are mutually exclusive, but a patient does not develop an OUD if he or she has never seen an opioid drug. Consequently, while program developers wanted to help frontline providers use opioids appropriately, they also wanted them to have the tools to properly treat a patient who presents with OUD.

Program developers solicited input from emergency medicine practitioners working in academic settings, small community hospitals, and critical access settings. “We tried to have a cross section of all different providers to see how all of [the evidence] could be pared down and translated into a best practice program that can be implemented at different levels,” LaPietra says.

## Choose from Three Levels

Ultimately, developers settled on three levels of accreditation: Gold, Silver, and Bronze.<sup>1</sup> Each level is associated with a range of capabilities. For instance, EDs seeking Gold-level accreditation need to maintain large, multidisciplinary pain and addiction management teams that involve nursing, information technology, pharmacy, quality improvement, and emergency providers.

Along with a broad array of pain medicine, Gold-level EDs should offer non-pharmacological

interventions, such as ice and elevation.

“We are also asking the Gold-level EDs to address special populations. That would include pediatric, geriatric, and pregnant patients,” LaPietra says.

For addiction care, Gold-level EDs must employ physicians who have obtained their DATA 2000 X waivers and can provide buprenorphine or naloxone when patients present in opioid withdrawal. Collaboration with outpatient treatment centers also is a must.

“Then we know exactly where the patient is going, and exactly what day and time they will receive follow-up care,” LaPietra says. “[Patients] are not just discharged, and we say ‘good luck.’”

Gold-level EDs also need to offer harm-reduction education to patients. For example, patients who are not interested in buprenorphine treatment need to be informed about where they can go if they decide to stop using, and where they can obtain clean needles.

In short, the Gold-level EDs should offer the highest level of pain and addiction care that may even go beyond pharmacological interventions. These might include ultrasound-guided regional anesthesia, nerve blocks, trigger point injections, and osteopathic manipulative therapy.

The Silver and Bronze accreditation levels each follow a similar pathway, but include fewer requirements. For instance, while the Gold level requires EDs to use at least four different pain management protocols, the Silver level requires two protocols, and the Bronze level requires one protocol.

Similarly, where the Gold level requires EDs to offer at least six nonopioid medication protocols,

## EXECUTIVE SUMMARY

A new accreditation program offers best practices in pain and addiction care for EDs across the country. Facilities can earn Gold, Silver, or Bronze status, with Gold representing the highest level of care.

- The goal of the program is to enhance bread-and-butter practice through evidence, support from an accrediting body, and a clear understanding that emergency providers who adhere to best practice have the backing of their own departments and institutions.
- The education guides frontline providers to use opioids appropriately, but also to arm them with the tools to properly treat patients who present with an opioid use disorders.
- The process to become accredited involves submitting an application, paying a fee, and going through a detailed review process.

the Silver level requires four such protocols, and the Bronze level requires two protocols.

When specifying the requirements for Bronze-level EDs, program developers were thinking about the resources available at many small critical access hospitals.

“The Bronze level does not require a physician champion, and does not require that a physician lead the pain and addiction care team,” LaPietra says. “This can be a clinician or provider who is willing to at least review some cases looking at pain and addiction.”

Further, these individuals need to understand the possibility of nonopioid alternatives for treating musculoskeletal pain, such as over-the-counter anti-inflammatories. Bronze-level EDs will reach for non-pharmacological interventions as much as possible.

They will provide information about OUD, and they will contact any treatment facilities within a reasonable drive to see if they can establish a relationship.

“We basically want the Bronze-level EDs to know there is still something that can be done,” LaPietra says. “No, they may not be doing nerve blocks and, no, they may

not have their X waivers, but they can still use opioid-sparing strategies.”

## Involve the Team

The PACED board also includes members from the Emergency Nurses Association (ENA), the American Society of Health-System Pharmacists, the Society of Emergency Medicine Physician Assistants, and the American Association of Nurse Practitioners.

“Emergency medicine is a team sport,” LaPietra notes. “We have our physician side of things, and then we have nursing, pharmacy, and mid-level provider input. When hospitals are applying [to PACED], we want to make sure we are addressing the needs of each those frontline providers.”

**Cathlyn Robinson, MSN, RN, CEN**, a clinical education specialist in the ED at St. Joseph’s University Medical Center, is serving as ENA’s representative for the PACED program. She worked alongside LaPietra in implementing the Alternatives to Opiates (ALTO) program at St. Joseph’s several years ago.

Robinson testifies to the importance of making such programs

interdisciplinary. “When we were developing that program, I developed the nursing education component that went along with it,” she explains. “[That involved] teaching nurses how to identify a patient who would be appropriate for an ALTO approach, and how to communicate with these patients and families. Many patients do not necessarily understand why we are not going to give an opioid first.”

Much of that work has carried over into PACED. Of particular importance to nurses is education about how to use the medications in a way that is not particularly conventional. For example, Robinson notes nurses generally are accustomed to administering lidocaine for a cardiac condition, but the drug also can be used for pain control.

“Teaching nurses why this works, how it works, and how we administer it is completely different,” she says.

Another non-opioid therapy that can be used effectively in some patients is nitrous oxide. Robinson encourages nurses to suggest this option to the treating provider.

“I can’t give nitrous myself as a nurse, but I can certainly go get the machine, and set it up for the physician,” she says.

## Optimize Communication

Robinson says nurses often encounter pushback from patients when a physician prescribes a non-opioid drug for pain.

“The patient will say that drug is not going to work for him. Then, it is up to the nurse to communicate why [the care team] wants to use this drug, how it works, and how to take it,” she explains. “Generally, with that sort of communication, patients better understand how we are trying

to treat their pain.” When it comes to addiction care, nurses play a critical role in assessing whether a patient is ready to engage in treatment, and then explaining to the patient how a warm handoff will work. Robinson says whether a patient enrolls in treatment depends on whether the nurse has engaged and connected with him or her during their encounter.

Nurses may be the first providers to identify patients who are in withdrawal from an opioid. Such patients may be candidates for buprenorphine. Further, if a physician orders buprenorphine for a patient, a nurse usually will administer the drug, a task that requires appropriate education.

“It is an interesting drug to administer because it is given under the tongue,” Robinson explains, noting the nurse needs to direct the patient to avoid swallowing the drug because it deactivates in the stomach.

However, Robinson stresses nurses need to understand buprenorphine carries much street value. “If you don’t go back and check on the patient in about 10 to 15 minutes after you have given them the drug, they may take it out of their mouths and stick it in their pockets to sell on the street,” she shares. “If the drug is not under their tongue — it takes a while to dissolve — we will know that the patient has either pocketed it or swallowed it.”

Sometimes, an initial buprenorphine dose is not enough to provide sufficient recovery to a patient in withdrawal. A nurse may observe a second dose is necessary.

“Make sure that the physicians and nurses are all on the same page, and that we are constantly thinking about opportunities to help these patients, whether that is through a warm handoff or considering

buprenorphine as an option,” Robinson says.

## Start the Process

EDs interested in becoming PACED-accredited must complete an application.<sup>2</sup> LaPietra advises ED leaders to review the requirements for each accreditation level to see where their facility fits. The cost to become accredited is \$2,500 for Bronze, \$5,000 for Silver, and \$10,000 for Gold.

Two members of PACED’s board of governors review applications, which include proof facilities have met each requirement for the desired accreditation level.

“There is also an opportunity for [applicants] to comment or [correspond] with the review team as they are going through the process,” Robinson says. “We, too, reserve time to reach back out to the institution if things are not clear.”

The reviewers selected for each application always work outside the applicant’s region. “We do not want anyone to be reviewing colleagues or places where they work,” Robinson says.

After reviewing the application, the two governors will score it. “If there is a discrepancy between the reviewers, the [application] will then be opened up to the entire board of governors for a formal review,” LaPietra explains.

If there is no discrepancy, the reviewers will provide their reasons for accepting or rejecting the application. Then, the full board will vote. “If it is determined that the institution fulfills all criteria, then we will formally accredit it,” LaPietra says. “We also have a marketing team available to [successful applicants] if they need some assistance on how to let their communities know ... that

they have just been recognized [for pain and addiction care quality].”

Additionally, following an initial accreditation designation, EDs can reapply after three years to seek a higher-level designation. At press time, LaPietra’s facility had just become the first Gold-level ED. There were at least two other EDs working toward Gold certification. At least two other facilities are working toward Bronze-level accreditation.

## Push for Progress

Ultimately, LaPietra is hopeful the new program will disseminate best practices for pain and addiction care nationally, and help frontline providers understand there is a mechanism available to guide them

toward improvement in this area.

“We would like to present EDs with a checklist that has been thoroughly reviewed by a national, professional organization,” LaPietra observes. “It is hard for EDs to digest all of the evidence and to know what exactly is best practice right now for pain and addiction care. We wanted to take that work out of it.”

For EDs that are lacking in certain areas, the PACED program offers educational resources that can be leveraged to help them improve. “If an ED is close to Gold, and [department leaders] are just lacking in one thing, they can click on an array of tools, educational podcasts, and different publications so that they can do some quality improvement work to get them to that Gold,” LaPietra reports.

LaPietra sees the new process as similar to national guidelines that have been established for other conditions like stroke and heart attack.

“Now, we have pain and addiction guidelines,” she says. “We wanted to make it that easy [for EDs] to provide the best pain and addiction care that they can for their communities.” ■

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# Patients with Substance Use Disorders at Much Higher Risk for COVID-19, Worse Outcomes

The results of a recent study suggest patients with a substance use disorder (SUD), especially an opioid use disorder (OUD), are at a much higher risk of contracting COVID-19.<sup>1</sup>

Investigators studied data from the IBM Watson Health Explorys EMR database, which includes medical record information of more than 73 million people treated at 360 hospitals across all 50 states.

After adjusting for age, race, gender, and insurance type, the authors found patients with an OUD were 10.2 times more likely than the general population to contract COVID-19, followed by those with tobacco use disorder (8.2 times more likely), alcohol use disorder (7.8 times more likely), cocaine use disorder (6.5 times more likely), and cannabis use disorder (5.3 times more likely).

Patients with a SUD also exhibited much higher rates of hospitalization and death from COVID-19. Further, those with a recent diagnosis of a SUD had a higher prevalence for many conditions when compared with the general population. For example, 22% of patients with a recent SUD diagnosis had asthma vs. 6.89% of the general population, 18.86% had COPD vs. 4.64% of the general population, and 72.67% had cardiovascular disease vs. 23.34% of the general population.

The findings also uncovered evidence of racial disparities. The authors noted the prevalence of many of these chronic conditions was higher in African American patients than it was in white patients. Hospitalization and mortality rates were significantly higher among African American patients diagnosed with a SUD vs.

white patients who were diagnosed with a SUD. “It is incumbent upon clinicians to meet the unique challenges of caring for this vulnerable population, just as they would any other high-risk group,” **Nora D. Volkow**, MD, study co-author and director of the National Institute on Drug Abuse, said in a statement.<sup>2</sup> ■

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# Health System Sends Some COVID-19 Patients Home to Monitor Remotely

Emergency physicians are accustomed to making decisions on whether patients should be admitted or discharged. However, it is not uncommon to encounter patients who are borderline, particularly in the age of COVID-19. Is there another option?

The University of Miami (FL) Health System has devised a third potential pathway. Certain COVID-19 patients who meet appropriate criteria can be discharged home with a device that facilitates remote monitoring by a care team operating out of the health system's division of internal medicine.

The UHealth Telegigilance program has helped the health system manage capacity during a period of high demand for inpatient beds. Patients and providers have taken a liking to the new option, and program developers are already thinking of additional ways to deploy the technology.

Candidates for the Telegigilance program tend to be those who are

on the fence between going home or moving to a hospital bed, explains **Richard Zaidner**, MD, associate director of emergency medicine at UHealth Tower, the hospital arm of the University of Miami Health System.

"These are patients who we don't think are quite sick enough to stay in the hospital, but they are also not well enough to go home on their own without any close follow-up," he explains.

There are specific criteria emergency providers consider when deciding whether the program is a good option, although nothing is set in stone. For instance, a key indicator is an oxygen level around 94%.

"A normal person has an oxygen level that is around 98%, 99%, or 100%. We see COVID patients who may go down to 96%, but they are not really symptomatic or they don't really have significant shortness of breath. Those patients don't really qualify," Zaidner observes. "But someone who is at 94% — that is on

the border ... where you are teetering on some significant hypoxia."

Providers also look at whether patients have comorbidities that might put them at higher risk. For example, patients with diabetes, high blood pressure, or pulmonary disease might benefit from closer monitoring. The caveat is the patient must not be so sick that he or she requires hospital admission.

"The goal is not admitting a patient who would do well at home with just closer monitoring," Zaidner adds.

If patients appear to meet the criteria for the Telegigilance program, they still must be able and willing. This includes determining if they are equipped with the right videoconferencing technology at home and can use it.

## Stress Education

When an emergency physician decides a patient is appropriate for the Telegigilance program, he or she will place an order in the EMR, notifying the nursing team. A nurse will retrieve a monitoring device and give it to the patient before discharge.

"A staff member will then walk the patient through how to use the device, make sure the blood pressure cuff fits, and answer any questions about the device before the patient goes home," Zaidner shares.

Once home, these patients receive a call from a patient educator, who will ensure the patient understands how to use the device.

"The device monitors temperature, blood pressure, heart rate, and oxygen saturation, and sends these data to the patient's electronic medical

## EXECUTIVE SUMMARY

To help manage high demand for inpatient beds, the University of Miami Health System has unveiled a program that enables some patients who present to the ED with COVID-19 to be discharged and closely followed at home with the help of a remote monitoring device. The UHealth Telegigilance program targets patients with conditions that put them on the fence between a hospital admission and discharge.

- A key indicator for program participation is oxygen level around 94%.
- The specific device used remotely monitors temperature, blood pressure, heart rate, and oxygen saturation, and sends these data to the patient's electronic medical record.
- An internal medicine physician reviews these data. If there are concerning vital signs, the provider will follow up with a telemedicine visit.
- In addition to its use in the ED, the program is leveraged with some hospital inpatients, effectively shortening their length of stay.

record,” explains **Sabrina Taldone**, MD, MBA, medical director of the Televigilance program. “The [internal medicine] physician reviews these data, and if there are concerning vital signs, the provider follows up with a telemedicine visit.”

Even with all these precautions, fear remains, which may manifest as a false emergency. One COVID-19 patient with pneumonia went home with the device, and then submitted vital signs showing tachycardia. “In the follow-up telemedicine visit, I identified that she was having anxiety attacks associated with palpitations,” Taldone explains.

Through education, the patient learned how to control her anxiety, which resolved the tachycardia and prevented the need for a return trip to the ED. “Both she and her daughter felt empowered and relieved to learn how objective measures like oxygen saturation and other vital signs, along with self-awareness of her symptoms, could be used to inform whether or not [the patient] would be safe at home or need to go back to the hospital,” Taldone says.

At press time, only about 50 patients had been involved with the Televigilance program, and there are no outcomes data yet. However, Taldone says program developers will be analyzing ED visits, readmissions, and other outcomes associated with device usage. Further, she notes the Televigilance program may expand to include other patient populations, including cancer and postoperative patients.

## Consider Challenges

Anecdotally, emergency patients seem pleased with the remote monitoring option. “There have been patients who love it. Often times, they feel a bit nervous about going

home with their symptoms, knowing that COVID has been causing so much damage to some patient populations,” Zaidner observes. This has been particularly the case among patients with comorbidities who realize they are at higher risk of suffering from virus complications.

Zaidner says some internal medicine provider monitors have reported on patients who have handled the system well. Other patients have been asked to return for further in-person evaluation. In either case, the monitoring has enabled clinicians to keep close tabs on patients who are in the program so that any change in status is picked up quickly.

Overall, emergency physicians seem pleased to have this option available to them. “We all want to send patients home who we don’t think require admission 100%,” Zaidner admits. “The patients love it, so it has also increased patient satisfaction.”

Still, there have been some challenges. For example, certain patients do not meet the technical requirements to participate, or they simply are not tech savvy enough to use the device. Zaidner says a patient went home with the device, expecting family members to help navigate the technology. But once they learned the patient was infected, they were nervous about risking exposure.

“The patient has to be somewhat tech savvy, although it is really not that complicated,” Zaidner says. “If

you can use a smartphone, you are able to do it. But if you don’t have a smartphone, that makes it difficult.”

## Prepare for Surges

The theoretical goal of the Televigilance program was to create capacity at a time of high demand, but there has not yet been a huge impact in that regard. Nevertheless, that does not mean it has not been meaningful. Even select inpatients are receiving the device, enabling them to be discharged earlier, too.

“We are using this on the order of one to two times per day, but it all counts. COVID patients, once they are hospitalized, they tend to stay for a long period of time. There is an accrual effect,” Zaidner observes.

The Televigilance program has been in operation only a few weeks; thus, administrators may not have been able to recommend it for as many COVID-19 patients if the program was available earlier in the year.

“If there is another peak [in volume] during flu season or later on in the year, we will be more ready for it,” Zaidner says. “There is nothing worse than being over capacity for a hospital. That is when patients do poorly. That is when, unfortunately, sick people die. I really think surge capacity, and having this as a kind of buffer, is great. It just adds extra capacity for beds.” ■

## COMING IN FUTURE MONTHS

- How secondary traumatic stress affects frontline nurses
- A triage tool to help emergency providers optimize care of COVID-19 patients
- Managing patients who present with dizziness
- A renewed push to address healthcare safety

# Stressed Frontline Providers Gear Up for Flu Season

If there has been any good news lately, it is that countries in the Southern Hemisphere reported much lower rates of influenza this year. That does not ensure the U.S. flu season will be mild, but it is an indication that the preventive steps taken to stop COVID-19 may be dampening circulation of the flu, too.<sup>1</sup>

“If, in the United States, we continue to mask and social distance, it is possible we could have a less severe flu season. But if those measures are relaxed, then we would probably have a normal, hard-to-predict severity flu season,” states **Catharine Paules**, MD, an infectious disease physician at Hershey Medical Center in Hershey, PA.

Despite the positive indications from the Southern Hemisphere, U.S. frontline providers must anticipate fresh challenges as the flu season unfolds.

“One of the biggest challenges will be trying to understand which

patients might have flu vs. those who might have COVID-19, and I think we won’t know in many cases,” explains **Jeremiah Hinson**, MD, PhD, a clinician, researcher, and assistant professor of emergency medicine at Johns Hopkins School of Medicine.

Consequently, Hinson notes the most likely way emergency providers will deal with such cases is by subjecting all those patients not to droplet precautions (typically in place to guard against flu transmission) but with the higher-level universal precaution measures in place for COVID-19. These measures include contact, droplet, and airborne precautions, which are a lot harder to execute.

## Anticipate Needs

Testing presents more challenges. There are sophisticated devices

that can test for multiple viruses at once, but resources may become constrained.

“One of the things we are going to be looking at is how to determine ... which patients we should test [for both flu and COVID-19], and which patients we might only test for the flu,” Hinson explains. “Algorithms for that are something that we are working on.”

Hinson notes providers have never been in this situation before. They probably will have to learn from the beginning of this flu season what is the best way to test, then see if they can avoid testing certain patients.

Paules notes anyone who presents to her ED with any type of COVID-19 symptom, including fever, cough, or shortness of breath, would undergo a COVID-19 test.

“There is a way to test for both [flu and COVID-19] viruses at once,” she explains. “There is also a respiratory virus panel that tests for COVID, flu, and several other respiratory viruses.”

A big consideration is the fact healthcare systems have seen many shortages of testing supplies throughout the pandemic. For instance, Hinson notes the cartridges used to run some tests have been in short supply, as have the reagents used to store respiratory samples while they are in transit to the lab. Even swabs used to collect samples have been hard to access in some regions.

Providers must act wisely if they want to change patient management. “You don’t really want to do a test, even if it gives you additional information, if there is nothing you can do with that information,” he explains. “For instance, if you have a patient who meets all of the CDC criteria for getting Tamiflu, and the

## EXECUTIVE SUMMARY

Countries in the Southern Hemisphere reported mild flu seasons, but that does not necessarily mean the same will hold true in the United States. Experts recommend U.S.-based EDs anticipate what resources they will require if the upcoming flu season is severe, and consider what testing strategies they will employ when patients present with respiratory symptoms that could be flu, COVID-19, or both.

- Generally, patients under investigation for COVID-19 are placed in universal precaution measures, a much more robust monitoring level than droplet precautions, which are required for suspected flu-positive patients.
- Some sophisticated testing platforms can look for multiple viruses at once, but such resources may become constrained. This may require frontline providers to optimize supplies.
- Rapid testing platforms that can deliver results quickly are beneficial, but it is unclear how accessible these tests will be to EDs across the country.
- Pay close attention to flu and COVID-19 co-infection cases and how such an occurrence could affect disease severity.

suspicion is very high that the patient has flu, you may not [order] a flu test. You would just treat them.”

During the upcoming flu season, there may be patients who arrive with symptoms that could be flu or COVID-19 — but they also may appear well, and they do not meet the criteria to receive antiviral agents for the flu.

“[In that instance], the only thing we want to know is whether that person, when [he or she] goes home, needs to isolate, whether the patient is infectious for COVID-19,” Hinson explains. “We might only test that patient for COVID, and not for the flu.”

## Consider Rapid Tests

“Rapid testing for patients who are under isolation for COVID-19 can actually have a really big impact on your resources,” notes Hinson, referring to recently available tests that deliver results quickly. “For a patient who is thought to have COVID-19 and is a person under investigation [PUI], the longer that person is under investigation ... the longer the people caring for him are using limited [supplies of] PPE [personal protective equipment] and expensive cleaning procedures. The sooner you can get to a negative diagnosis for a [PUI] inside the

hospital setting is probably for the better.”

Consequently, EDs with access to rapid testing platforms can create streams of workflow so patients who are physically cohorted under isolation precautions for COVID-19 are those who undergo rapid tests. Meanwhile, other testing can be syphoned into a separate work stream where patients receive a less rapidly processed test.

Patients who are seen immediately and designated for discharge regardless of test results do not require rapid tests.

“You can use a systems-based approach in your ED so that you can make the most of whatever infection control resources you have for COVID-19,” Hinson shares.

Johns Hopkins uses an automated, molecular test that can deliver results in 45 minutes. Other companies have developed similar platforms, but it is unclear how quickly such systems will be available.

“The supply has been increasing over time,” Hinson observes. “I know that all of these companies are rapidly expanding their production.”

## Prepare for Surges

Knowing which respiratory illness a person has carries implications when it comes to treatment,

particularly in critically ill patients. Supportive care is a mainstay treatment for flu and COVID-19 patients, but recent data show steroids may be helpful in some patients with COVID-19.<sup>2</sup>

“If a person is sick enough to need oxygen, [the patient] tends to do better when [he or she] receives dimethazone,” notes Hinson, referring to a steroid drug that has been studied in COVID-19 patients.

However, steroids have not been as promising when given to patients with flu. In fact, some data suggest steroids could result in harm for subsets of patients with flu.<sup>3</sup>

One issue that warrants close observation is the incidence of flu and COVID-19 co-infection. At this point, it is unclear how common this might be in the months ahead.

“I also don’t think we have a lot of data right now about how much more severe the disease is when people are co-infected with COVID-19 and influenza,” Hinson adds.

There are two questions researchers will investigate in the coming months. First: Is a person who is co-infected with COVID-19 and flu at higher risk for worse outcomes? “We would hypothesize that they are, but we don’t know that,” Hinson offers.

Second: If a person contracts either the flu or COVID-19, does

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that make him or her more likely to contract the other illness? “We just don’t have that information yet, but these are things we will look at,” Hinson explains.

Not really knowing how the upcoming flu season will unfold or how the COVID-19 pandemic might progress, emergency providers must focus on ensuring they have access to maximum resources, especially PPE, and that their testing platforms are sorted out. “Every hospital’s preparedness is going to look a little bit different based on the hospital itself, the patients it serves, and what

kind of resources [clinicians] have at their disposal,” Paules shares. “My general recommendation would be to prepare as if there could be a very severe respiratory viral season this year. Plan for large surges of people with respiratory illness. Hopefully, that won’t happen, but I think we need to prepare as if it will.” ■

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# The Race Is On for a Universal Flu Vaccine, as Another Virus Emerges in China

Infectious disease experts recently highlighted the fact that even before the COVID-19 pandemic began, researchers were working on “the Holy Grail of pandemic preparedness.”

“In 2018, the National Institutes of Health [NIH] unveiled a strategic plan<sup>1</sup> to develop a universal flu vaccine,” observed **Jeanne Marrazzo**, MD, MPH, FIDSA, director of the division of infectious diseases at the University of Alabama at Birmingham.

Speaking with reporters during a session hosted by the Infectious Diseases Society of America (IDSA)

on Sept. 10, Marrazzo discussed the implications of such a development.<sup>2</sup>

“The perfect influenza vaccine would protect against not just many different kinds of influenza A, but also some influenza B,” she said. “It would have durable protection so you may not have to get vaccinated every year.”

In May 2018, the National Institute of Allergy and Infectious Diseases launched a Phase II trial of a universal flu vaccine.<sup>3</sup> Thanks to the accelerated development of new platforms to develop vaccines, there could be more candidates soon. “The flu vaccine is still developed

in chicken eggs, which seems really archaic given that in six months we developed COVID vaccines, using these incredible [mRNA-based] platforms,” she said. “If there are any silver linings to the COVID pandemic, at least one of them will be hopefully transferring some of these ... really dramatically fast technologies and platforms to the influenza vaccine arena.”

A breakthrough cannot come soon enough, considering recent reports of an emerging virus circulating in China.<sup>4</sup>

“There is currently an influenza A [virus] that is spreading in pig

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farms and pig farmers [there],” noted **Leonard Mermel**, DO, ScM, ScM, AM (Hon), FACP, FIDSA, FSHEA, a professor of medicine at Brown University and medical director of the department of epidemiology and infection control at Rhode Island Hospital in Providence.

Mermel, who also spoke during the IDSA session, noted that upward of 15% of pig farmers in China have antibodies to this unique strain, which he said was more virulent, more infectious, and produces worse outcomes than many influenza strains.

“It has all the attributes of causing a pandemic,” Mermel warned. “We’ve got to get the universal flu vaccine before this virus, which is basically locked, loaded, and ready to go, spreads from China’s pig farmers to other parts of Eurasia to other parts of the world.”

Mermel noted that there are still other flu viruses that are spreading from animals to humans, too. “The race is on for a universal vaccine, and it is of the utmost urgency,” he stressed. ■

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## CME/CE QUESTIONS

1. **This drug can be used for pain control, but nurses generally use it for a cardiac condition.**
  - a. Captopril
  - b. Clopidogrel
  - c. Tenormin
  - d. Lidocaine
2. **One of the main indicators that emergency providers consider when determining whether a patient is a good candidate for the UHealth Televigilance program is:**
  - a. an oxygen level that is around 94%.
  - b. blood pressure that is in the normal range.
  - c. adequate mental health status scores.
  - d. whether the patient is a frequent healthcare user.
3. **For patients who are under isolation for COVID-19, what tool helps providers conserve resources?**
  - a. Cohorting
  - b. Rapid testing
  - c. Discharge home
  - d. Early treatment
4. **What percentage of pig farmers in China have antibodies to a unique new strain of influenza?**
  - a. 5%
  - b. 10%
  - c. 15%
  - d. 20%

## 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;
3. Implement managerial procedures suggested by your peers in the publication.



# ED MANAGEMENT

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**Statement of Ownership, Management, and Circulation**

1. Publication Title: ED Management  
2. Publication Number: 10/1/2020  
3. Filing Date: 10/1/2020  
4. Issue Frequency: Monthly  
5. Number of Issues Published Annually: 12  
6. Annual Subscription Price: \$299  
7. Complete Mailing Address of Known Office of Publication (Not printer) (Street, city, county, state, and ZIP+4®): 1010 Sync St., Ste. 100, Morrisville, NC 27560-5468.  
8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer): 1010 Sync St., Ste. 100, Morrisville, NC 27560-5468.  
9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank):  
Publisher (Name and complete mailing address): Relias LLC, 1010 Sync St., Ste. 100, Morrisville, NC 27560-5468.  
Editor (Name and complete mailing address): Jonathan Springston  
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13. Publication Title: ED Management  
14. Issue Date for Circulation Data Below: September 2020

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