



→ INSIDE

Using chest X-rays to predict illness severity, need for intubation in COVID-19 patients . . . 77

How EDs are adapting to the needs of patients with autism, other sensory sensitivities 77

Pediatric patients and the rise of mental health-related visits 81

A new process accelerates care to critically ill patients. . . 81



RELIAS
MEDIA

JULY 2020

Vol. 32, No. 7; p. 73-84

Hospitals Innovate to Meet Surging Demand for Palliative Care Services

One of the challenges that has emerged over the course of the COVID-19 pandemic is the surge in demand for palliative care services under circumstances that impede the optimal delivery of this kind of care.

In some cases, frontline providers are scrambling to ascertain a critically ill patient’s wishes while donned with face masks and goggles that make communications difficult. Tight visitation policies also have proven problematic, necessitating the use of smartphones or other devices to connect patients with loved ones while they try to make critical care decisions.

In short, the pandemic has made what are always difficult conversations even more fraught, placing added stress on medical providers, patients, family members, and palliative care specialists.

This remains a thorny issue to navigate, particularly for providers who are not as accustomed to dealing with the end-of-life decision-making process. However, some hospitals have employed innovative approaches designed to ease the burdens on medical

providers confronted with these end-of-life challenges while also accelerating palliative care expertise to where it is most needed.

While no perfect solutions have emerged, the pandemic has laid bare the importance of putting plans in place to surge critical palliative care resources.

The palliative care team at University Hospital in Newark, NJ, is comprised of three advanced practice nurses who typically handle palliative care consults. But when COVID-19 began to hit the state hard in early March, it was clear a surge in demand for these services was at hand.

That is when **Jenna Marcus, MD**, an assistant professor at Rutgers New Jersey Medical School, started formulating a plan. “I was initially deployed to the ICU, but [with] my background as a gynecologic oncologist ... I quickly realized there was a need for these types of delicate conversations by people who have experience and training in talking about [end-of-life and critical care] issues,” explains Marcus, a gynecologic oncologist at Rutgers Cancer Institute of New Jersey.

[ReliasMedia.com](https://www.reliasmedia.com)

Financial Disclosure: Physician Editor **Robert Bitterman**, MD, JD, FACEP, Nurse Planner **Nicole Huff**, MBA, MSN, RN, CEN, Author **Dorothy Brooks**, Editor **Jonathan Springston**, Editor **Jill Drachenberg**, Editorial Group Manager **Leslie Coplin**, and Accreditations Director **Amy M. Johnson**, MSN, RN, CPN, report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies having ties to this field of study.

ED MANAGEMENT

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.

SUBSCRIBER INFORMATION

Customer Service: (800) 688-2421
customerservice@reliamedia.com
ReliasMedia.com

ACCREDITATION

Relias LLC is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Relias LLC designates this enduring material for a maximum of 1.25 AMA PRA Category 1 Credit(s)[™]. Physicians should claim only credit commensurate with the extent of their participation in the activity.

Relias LLC is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation. Contact hours [1.25] will be awarded to participants who meet the criteria for successful completion. California Board of Registered Nursing, Provider CEP#13791.

This activity is intended for emergency physicians, ED nurses, and other clinicians. It is in effect for 36 months from the date of the publication.

Opinions expressed are not necessarily those of this publication, the editors, or the editorial board. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought in specific situations.

AUTHOR: Dorothy Brooks
EDITOR: Jonathan Springston
EDITOR: Jill Drachenberg
EDITORIAL GROUP MANAGER: Leslie Coplin
ACCREDITATIONS DIRECTOR: Amy M. Johnson, MSN, RN, CPN

© 2020 Relias LLC. All rights reserved. No part of this newsletter may be reproduced in any form or incorporated into any information-retrieval system without the written permission of the copyright owner.

Further, she saw the need for palliative care was coming from throughout the hospital, including from frontline providers in the emergency department (ED) trying to manage quickly deteriorating patients with COVID-19.

To meet this demand, Marcus proposed creating a palliative care mobile unit, essentially a team of clinicians with experience in conducting palliative care consults that could quickly travel to the bedside of any patient in need of such services.

“We wouldn’t have one static location that houses all the patients, but rather we would be available as a team to service the regular medical floors, the ICUs [intensive care units], and the ED patients who needed urgent conversations about goals of care and, in some patients, end-of-life decision-making,” Marcus shares. “Sometimes, [this would involve] documenting a healthcare proxy in advance directives ... but any of those services we would be able to provide so the medical team could focus on the medical care and also the extreme volume of patients coming in.”

Hospital administrators approved the plan, and the mobile unit was put into practice by the second week of April. For the next month, Marcus and three other team members, all with backgrounds in palliative care from their cancer training, were almost completely dedicated to providing palliative care services to help alleviate the large volume of patients requiring these services. The team operated 24 hours a day, six days a week.

Marcus notes the hospital is fortunate palliative care-trained clinicians are on staff. “They were a huge asset to help support our team,” she says, noting these physicians

pitched in when they were not on their usual ED shifts. However, high demand is not the only challenge that has emerged. Time also has been an issue — and it is not a resource emergency providers usually have in ample supply. For instance, under normal circumstances, palliative care discussions will occur early in the disease process and in a setting where patients and providers have some relationship, Marcus notes.

“There is some early addressing of the prognosis with the patient, followed by talking about goals of care,” she explains. “Having to make some of these really complicated decisions quickly is a challenge, especially in a setting like the ED, where [clinicians] are looking to stabilize patients and either [admit] them to the hospital or send them home. Paying attention to all these types of [palliative care] details can be a little tricky when that is not necessarily the purpose of the ED.”

In any care setting, such discussions can feel rushed and callous when not handled appropriately. Consequently, the services provided through the mobile unit were made widely available throughout the hospital.

“We were able to receive immediate, HIPAA [Health Insurance Portability and Accountability Act]-compliant text messages from providers,” Marcus says. “We made a schedule that was published so providers could simply look at who was on the schedule, send us a message, and we would be there.” Further, Marcus notes the mobile team members have existing relationships with many hospital providers, some of whom would simply call them to request they come see a patient.

Over the course of April and early May, there were opportunities for

learning regarding when clinicians should be thinking about bringing in palliative care.

“Initially, when we started to really surge and were very clinically busy, a lot of the time the calls [for a palliative care consult] happened in cases where patients were critically ill. They either came in already intubated or were so sick they couldn’t make decisions for themselves,” Marcus observes.

In those cases, the mobile team members would need to track down a healthcare proxy, if the patient had one, or the next of kin to help make those sorts of decisions.

“As we continued to work together and go along ... [clinicians] would see someone come in who looked as if there was going to be a potentially severe, prolonged course of disease,” Marcus shares. “They would recognize to call us early so that we could start to establish some of these conversations with patients and families.”

Frequently, for cases in which a patient with COVID-19 was awake, alert, and could make his or her own decisions, a mobile team member would visit with the patient in person, wearing all the appropriate personal protective equipment (PPE), Marcus explains. However, if a patient could not make his or her own decisions, the palliative care consultation generally would commence over the phone with a healthcare proxy.

“Usually, this would begin with some of the basics of me introducing myself to the family as someone who is going to be a palliative support person to them,” Marcus reports. “Then, I would also look into helping the family schedule a video visit.”

In fact, the meaning behind “mobile” is twofold. It refers to the mobile team members who would physically travel to wherever

EXECUTIVE SUMMARY

Faced with a surge in demand for palliative care services, some hospitals have devised new solutions for accelerating this kind of expertise to providers, many of whom are overwhelmed with providing care to critically ill patients with complex needs. University Hospital in Newark, NJ, assembled a palliative care mobile unit, a group of cancer specialists well-versed in conducting goals-of-care discussions, to respond to calls for palliative care consults anywhere in the hospital, including the emergency department (ED).

- From early April until the end of May, when the demand for palliative care eased, the mobile unit operated 24 hours a day, six days a week to quickly respond to provider calls for palliative care consults.
- Three emergency physicians on staff who also trained in palliative care helped the mobile team when they were not working their regular ED shifts.
- With strict visitation policies in place, the mobile team often leveraged video chat technology to connect patients with loved ones.
- Hospitals in regions that are not as hard hit by the pandemic still face palliative care challenges, particularly regarding connecting patients near the end of their lives with loved ones.
- A particularly thorny issue has emerged for hospitals in North Carolina, where a state statute requires an advance directive to have two witnesses and to be notarized. This process is not possible with the strict hospital visitation requirements in place.

they were needed. Also, it refers to the video chat services the team members would use to facilitate communications between patients and family members. This has been a critical element, considering hospital visitation restrictions.

“We [enabled] family from across the country or even across the world to ... talk to their family member or to see their family member if he or she was too sick or had a breathing tube and couldn’t talk,” Marcus explains. “They wanted to have that time with [the patient] where they could say what they wanted to say, sometimes in the last moments.”

For instance, in some cases, family members would say prayers or sing songs during these sessions. “Whatever the family and patient felt would be helpful, we were there to support them with those technology services,” Marcus notes. While such technology has been helpful,

there is no denying the limits that COVID-19 has placed on palliative care providers.

“With patients who are severely ill, we don’t have the luxury of time to have these conversations,” Marcus laments, noting that sometimes important critical decisions need to be made quickly. “We usually have [developed] relationships with these patients and families so that [these decisions] don’t feel ... so rushed.”

Nonetheless, Marcus believes the palliative care mobile unit concept will endure as an option beyond the current crisis, although not necessarily in the same format.

As demand for palliative care services has eased in recent weeks, most mobile team members, including Marcus, have returned to their regular jobs. While the usual palliative care providers can handle the current volume, the mobile unit concept could be activated easily if a

need arises. “We have developed those relationships, and we are all willing to pitch in and help out,” Marcus observes.

Still, putting plans in place ahead of public health emergencies is vital. Developing the skill to provide these services well cannot happen on the fly, Marcus advises.

“In medicine, as with a lot of things, it takes time and experience to finesse these conversations in ways so that you are really able to both deliver and extract information from the patient and family [in ways] that will benefit everybody,” she explains.

Duke University Hospital has not yet experienced the same kind of surge in demand for palliative care services as hospitals in New Jersey. Nevertheless, there are significant obstacles associated with providing these services in the midst of COVID-19.

“The greatest challenges have [involved] the isolation of patients from their families, especially at the end of life,” explains **Jennifer Gentry**, MSN, ACHPN, ANP-BC, FPCN, GNP, RN, a nurse practitioner with the Duke University Palliative Care Consult Service. “[The epidemic] has made having discussions around treatment and goals of care more [difficult] as they are often done from a distance rather than face to face.”

The challenges presented by strict visitation rules extend to patients who are nearing the end of life for non-COVID-19-related causes, Gentry explains. “These patients may not be dying from COVID-19, but sadly they may still be very isolated

from their families,” she says. In some cases, it is possible to receive exemptions to the visitation rules for patients who are nearing death, but this usually extends only to one or two family members, Gentry says. Otherwise, the only option available is communication via video.

However, Gentry has found that seeing a loved one in person carries significant advantages over video visitation or phone communications when it comes to care planning. For example, seeing a loved one in distress with many symptoms often will help families make important decisions about care. Now, that element usually is not part of the equation. “Sometimes, I have to paint the picture for them and help family members see what I see,” Gentry notes.

All the PPE palliative care providers must wear when visiting patients affects communications, too. For instance, eye shields can fog and face masks make it impossible for a patient to read lips. “In the best of times, these conversations are difficult. [All of these barriers] just make them even more difficult,” Gentry observes.

One added difficulty Gentry wishes she had anticipated concerns a North Carolina statute that requires an advance directive to have two witnesses and to be notarized. “Because of [this epidemic], we don’t have visitors walking around that we can grab to witness the signature on the document,” she explains. “Sometimes, when patients come in very ill and they need an emergency decision-maker, that is very problematic.”

Gentry hopes to work with colleagues to amend the statute, but such action may be too late to affect any patients or families struggling with COVID-19 in the near future.

While there have been numerous obstacles associated with the pandemic, Gentry says the experience has elevated the importance of advance care planning. People have been so bombarded with information about the disease and its end-of-life implications that they seem more attuned to the issues involved and more open to discussing such matters with their care providers, she explains.

Further, Gentry is hopeful policymakers and hospital administrators understand the importance of procuring sufficient palliative care resources. “Most hospitals in this state have some sort of palliative care program, but usually these programs are pretty lean,” she says. “There might be one or two providers on the [palliative care] team, but sometimes not a full interdisciplinary group.”

The COVID-19 experience has demonstrated palliative care is not a luxury, it is essential, according to Gentry. She stresses the need for training in this area extends well beyond a core group of providers.

“People need to be able to provide primary palliative care if they are not a palliative care provider,” she explains. “Palliative care specialists need to have the funding and the time to be able to teach other people about the basic things they can do to facilitate goals-of-care discussions.”

Such training should include guidance on communications, symptom management, and how to involve an interdisciplinary-professional team. “Does it need to be the provider who begins a conversation, or can someone else on the team begin to have the conversation about advance care planning?” Gentry asks. ■

COMING IN FUTURE MONTHS

- Easing patient fears about seeking needed emergency care
- Managing pandemic-related mental health concerns
- A closer look at multisystem inflammatory syndrome in children
- Maximizing telehealth capabilities

Chest X-Rays Used to Predict COVID-19 Severity in Young and Middle-Aged Adults

Researchers reported chest X-rays performed on young and middle-aged adults with COVID-19 when they arrive in the emergency department (ED) can help providers predict which patients are at high risk of severe illness and likely will require intubation.¹

In a retrospective review of 338 patients between age 21 and 50 years with confirmed COVID-19 diagnoses, researchers used a unique scoring system to evaluate illness severity based on patterns in the lungs that could be seen in chest X-rays.

Investigators reported each chest X-ray was divided into six zones (three zones per lung) and examined for opacities, the white circular markings associated with COVID-19, by two cardiothoracic

radiologists. The scores were correlated into a total lung zone severity score based on the presence or absence of opacity in each zone. A chest X-ray score of 3 or higher was an independent predictor of intubation.

Among the patients studied, 145 were admitted. Patients with the highest lung zone severity scores were 6.2 times more likely to require hospitalization and 4.7 times more likely to require intubation.

The authors noted that while men were more likely than women to record higher lung severity scores and to be admitted, they were not more likely to be intubated.

Further, the researchers found no significant differences in outcomes based on race or ethnicity when the

data were adjusted for other factors such as age, gender, weight, and comorbid conditions.

Investigators noted this is the first study to demonstrate the value of using X-rays in the ED to predict how sick COVID-19 patients are likely to become, and potentially use this information to allocate resources and expedite needed treatment in the most severe cases. ■

REFERENCE

1. Toussie D, Voutsinas N, Finkelstein M, et al. Clinical and chest radiography features determine patient outcomes in young and middle age adults with COVID-19. *Radiology* 2020; May 14;201754. doi: 10.1148/radiol.2020201754. [Online ahead of print].

Improving the ED Care Experience for Young Patients with Sensory Sensitivities

Several emergency departments (EDs) are ensuring young patients with autism or other sensory sensitivities receive care that minimizes the potential for anxiety or other adverse consequences, which can occur when these patients feel overwhelmed or are approached in a way that is uncomfortable for them.

Kevin Connelly, DO, medical director of the pediatric ED at Henrico Doctors' Hospital in Richmond, VA, says such measures make sense given the large number of children who present to the ED with these types of concerns. "The CDC [Centers for Disease Control and Prevention] says one in 54 kids ends up getting diagnosed with an autism spectrum disorder," he explains.

(More CDC statistics are available here: <https://bit.ly/36DIids>.)

Further, patients with these sensory disorders tend to require medical services on a more frequent basis than is typical, Connelly notes. For instance, many of these children experience seizures or present with other underlying conditions that prompt recurrent visits to the ED. However, the healthcare setting can be a stressful environment for these patients, considering the sights, sounds, and the smells present in a bustling ED.

Henrico is a small community hospital with 21 beds in the adult ED and five beds in the designated pediatric area. "We wanted to make a place that is more comfortable

and inviting for children and their families," Connelly reports. "Whether [the children] are nonverbal or highly functioning, they still have different sensitivities and need someone to understand them."

Clinicians from the ED worked with experts at the St. Joseph's Villa Sarah Dooley Center for Autism in Richmond to determine how they could make a visit to the ED less traumatic or triggering for a patient with sensory sensitivities. This led to several simple environmental changes. For example, all patient rooms in the pediatric ED have been reconfigured and painted in blue, a calming color, Connelly shares.

"We have removed a lot of the unnecessary equipment in the rooms

... so they just look cleaner, neater, and safer,” he says. “We had children do some artwork, and we put the artwork up on the walls.”

The hospital also replaced all the bright, buzzing fluorescent fixtures with quieter LED bulbs that are connected to dimmers so that the brightness level can be adjusted as needed. Further, while monitor alarms can be heard at the nurses’ station, there is no loud dinging near patient rooms, Connelly adds.

ED staff assembled a cart that is packed with various items that can be helpful to patients with sensory sensitivities. Items include noise-canceling headphones and an overhead projector that can cast stars and calming lights on the ceiling or even play relaxing music. There are many tools people who work in the autism community have

recommended for children with sensory sensitivities.

“That cart can go from room to room and offer things to [patients and families] to make their stay there more comfortable and help them manage patient anxiety,” Connelly observes.

Beyond environmental changes, ED leaders worked with experts from the Dooley Center to develop an education program for staff. Certainly, the program conveys what autism spectrum disorder is and the many different ways it can manifest. More importantly, staff learn the importance of approaching patients with this disorder in the way those patients prefer.

“If a child wants to stand up while you [put in] his IV because he is more comfortable that way, then you allow him to stand up,” Connelly notes.

The program includes instruction on how to effectively communicate with these patients, and what types of language or wording seems to work best.

“There is that initial training. Then, just like everything in medicine, you are always learning as you are doing it and being exposed to different scenarios,” Connelly explains. “The biggest thing we teach [staff] is to be flexible.”

Recently, a patient presented to the ED. He was nonverbal and not high functioning.

“He came in with a caregiver from a group home. The physician who saw him wanted a chest X-ray, but he had a really hard time examining the patient,” Connelly recalls. “The physician approached the boy in a typical way, trying to interview him, interview his caregiver, and then do a physical exam that didn’t go very well.”

The radiologist arrived to take the child for an X-ray, taking hold of the boy’s arm and asking him to come with him to the X-ray room. At that point, the child melted down, Connelly relates. “He didn’t know what was going on,” he notes.

At this point, Connelly was consulted about the patient, and he agreed to come speak with the boy.

“I went down and talked to his caregiver and talked to the child directly also. Even though he is nonverbal, that doesn’t mean he cannot understand. I tried to find out what his sensitivities were,” he shares.

After learning the child’s sensitivities were sound and touch, Connelly explained the doctors wanted to do some things to make sure he is healthy. He asked the boy if he wanted to go home, and the boy nodded. Connelly explained that first, the doctors were going to take a picture with a big camera, and

EXECUTIVE SUMMARY

Some emergency departments (EDs) are adapting their workflows and approaches to care to meet the needs of patients with sensory sensitivities. This is particularly evident in a growing number of pediatric EDs where environmental changes have been made. Staff members are learning how to better engage and communicate with patients diagnosed with autism or other sensory sensitivities.

- The pediatric ED at Henrico Doctors’ Hospital in Richmond, VA, has worked closely with a local autism center to present a more inviting environment to patients and families with sensory sensitivity needs. This includes using calming paint colors and removing distracting alarms and other potential triggers in patient rooms.
- The hospital has trained ED staff on how to better engage and communicate with patients so a patient’s sensory sensitivities do not become a barrier to providing needed care.
- Children’s of Alabama in Birmingham has developed a sensory pathway so children with heightened sensory sensitivities will be identified early. Then, clinicians can approach these patients in way that will not overwhelm them or trigger a negative reaction.
- The sensory pathway was piloted in the ED, but has since expanded to the hospital’s operating rooms, inpatient units, and post-anesthesia care unit. A sensory pathway taskforce has been assembled to manage the program and provide leadership throughout the hospital.

that then he could go home. The boy nodded his head again.

“I then told the radiology technician to bring the portable machine and get the X-ray in the boy’s room, not take him to another room that is cold and loud that he is not familiar with,” Connelly explains.

This also allowed the X-ray to be performed with the boy’s caregiver present.

“They brought the portable machine in, [the boy] sat there, [the radiologist] took the picture, and then they left,” Connelly says.

It was just a matter of approaching the patient differently and making the encounter comfortable. This allowed the boy to understand what was expected of him and what he could expect to happen.

How are patients with sensory sensitivities identified? That starts as soon as patients present to the triage desk. “There is a sign we put up that says we are autism and sensory sensitivity friendly,” Connelly shares. “The triage nurse in the intake process can ask the parent or caregiver and the child” if there has been a sensory sensitivity diagnosis, Connelly says. If the answer is yes, the patient and family will not be directed to the waiting room, which can be noisy and distracting to a patient with sensory sensitivities. Instead, they will immediately be brought back to a bed, Connelly adds. The entire

revised approach was introduced in December 2019 after roughly one year of research and preparations. The reception has been positive from both healthcare personnel and patients. “The first night we did this, I had five patients who came to the ED because they saw [media coverage about the changes]. Their children are on the spectrum, and they wanted to experience this kind of care,” Connelly relates.

Through social media, parents across the country have been seeing the same media coverage and sharing their thoughts. Typically, these comments express a desire to see this type of autism and sensory sensitivity-friendly changes in hospitals in their regions.

Henrico leaders are expanding the approach beyond the pediatric ED. “They have already done this up on the pediatrics floors and the pediatric ICU [intensive care unit],” Connelly reports. “We are also trying to do this for patients who come into the adult ED.”

Connelly says patients with autism or sensory sensitivity disorders do not grow out of their conditions. Changes like those at Henrico can be beneficial to patients of all ages. “Hospital [administrators] have said they are interested in doing this hospitalwide so that adults can have these needs met as well,” he says. Additionally, ED staff members are cross-trained to

work in both the adult and pediatric EDs, making it easier to implement the approach in both settings.

While hospital administrators usually think about the special needs of patients with physical disabilities, often placing bars and ramps in the bathrooms to ease access, they often do not give the same attention to patients with sensory disabilities, Connelly observes. The Henrico approach is one way to address this gap.

For other hospitals or EDs thinking of initiating similar changes, Connelly advises conducting extensive research. A local center of excellence on autism can be an invaluable resource.

Connelly also suggests connecting with other hospitals that have put these changes in place. For instance, he talked with an emergency medicine colleague at another hospital that had implemented a similar program. This colleague shared valuable knowledge and insight.

Children’s of Alabama in Birmingham has taken a slightly different approach toward meeting the needs of young patients with sensory sensitivities. This facility’s journey began in 2016 with its launch of a “sensory pathway” pilot project for its ED.

Leaders recognized there are patients the hospital cares for every day who present with unique challenges relating to their communication and



Check out this webinar series: 2020 Pediatric Readiness Webinar Series Episodes 1 - 4



Credits: 4 Credit Hours CME/CE



Duration: 4 hours (60 min. each)



Presenter: Ann M. Dietrich, MD, FAAP, FACEP



Format: On-Demand

Visit us online at ReliasMedia.com/Webinars or call us at (800) 688-2421.



**RELIAS
MEDIA**

The trusted source for
healthcare information and
CONTINUING EDUCATION

social vulnerabilities, explains **Michelle Kong**, MD, an associate professor in pediatric critical care at the University of Alabama at Birmingham. She says these patients may have autism, Down syndrome, attention-deficit/hyperactivity disorder, or another sensory-related special need.

“Often, these patients come to Children’s of Alabama for a medical issue, whether it be a fracture, an ear infection, or a viral infection,” she says. “Because of their core characteristics, sometimes it can pose an additional barrier to medical care.”

Similar to the program in place at Henrico, the foundation of the sensory pathway program is education.

“Staff members are trained to recognize ... the ways these kids may manifest their sensory sensitivities ... and to engage and communicate with them in a way that is appropriate for each child’s level,” Kong explains. “Further, depending on the day and what the flow of the ED is at a given moment, a patient can also be placed in a room that is quieter and further away from the flow of the ED to try to mitigate some of [the stressors] in what can be an overwhelming situation.”

There are toolkits available that include headphones, sunglasses, fidget tools, and other items that can be helpful, depending on a child’s specific sensory sensitivity. If a child is sensitive to light and noise, dim the lights and ensure the provider modifies how he or she enters the room and engages the patient. The idea is to avoid triggering a patient who may have calmed down from what was initially an anxiety-producing situation.

Kong, mother to a child on the autism spectrum, explains children with these sensory sensitivities often understand better when using

concrete language. “You need to avoid saying things like ‘hey, hop up on the bed,’ because for someone who is a literal, concrete thinker, that would be literally hopping like a rabbit,” she explains.

Also, some children communicate with an assistive device or understand better when a visual chart is available.

“A lot of times these children do not communicate verbally; they communicate via other means,” she explains. “Modifying the way we engage and communicate with the child can clam down the anxiety and simplify the situation ... ultimately, what you want is to be able to deal with the medical issue.”

If a child is agitated, it is difficult to suture a laceration. “But what we have seen is that by doing some of these non-pharmacological interventions, you can really help alleviate a lot of the anxiety,” Kong reports.

At Children’s of Alabama, patients with sensory sensitivities usually are identified during the ED triage process, Kong explains. Often, the patient or family member accompanying the patient will disclose sensory needs.

However, in some cases, the clinician will identify the patient’s sensory sensitivities.

“The triggering of the sensory pathway can happen both ways,” Kong notes. “The earlier you identify the need ... the better it is. Then, you can provide services up front, but the process can be triggered at any point during the hospitalization.”

A child may not exhibit any signs of a sensory need at triage. Later, during the child’s hospitalization, there could be clear evidence of a heightened sensory need. At that point, the pathway can be triggered. It is important to provide clinicians with this flexibility. Otherwise,

clinicians will miss many patients who could benefit from the pathway, Kong stresses.

Once a sensory sensitivity is noted in a patient’s chart, any clinician who sees the patient on subsequent visits will know to trigger the pathway and understand what the child’s specific sensitivities are, Kong observes.

Since Children’s of Alabama piloted the sensory pathway in its ED, the approach has expanded to operating rooms, the post-anesthesia care unit, and inpatient units. Patient and provider feedback are the primary metrics that help leaders gauge the program’s effectiveness.

In the ED, every time a patient is put on the pathway, the family will receive a survey.

“What we have been able to show is that ... satisfaction is actually higher. A lot of that comes from both staff interactions and access to the individual tools,” Kong notes. “One family ... said that they typically have their own headphones and iPad, but because they were rushing to the hospital they forgot those items. It was so helpful for them to immediately have access to the headphones when it was recognized that [their child] had a sound sensitivity.”

For anyone interested in implementing a similar initiative, Kong suggests identifying the stakeholders involved. Be prepared to impress upon them why these proposed changes are important.

“Unless there is an understanding of why [such changes are] important and need to be done, it is very difficult because you don’t have buy-in. That is the biggest piece,” she explains.

Once there is buy-in, then it is a matter of developing a mechanism for educating staff. At Children’s of Alabama, a sensory pathway task

force has been assembled to manage the process. Kong serves on the task force, along with nurse educators, child life specialists, and information technology personnel.

“Together as a team, we provide leadership to the rest of the hospital,” she explains.

A key part of this process has involved identifying lead champions

within the individual units to help drive the effort. The task force is developing an online training module to help facilitate the program’s educational goals. ■

More Pediatric Patients Visiting ED for Mental Health-Related Reasons

Investigators reported that while the number of pediatric visits to the emergency department (ED) has remained relatively stable over the last decade, visits for mental health-related concerns have increased by 60%.

Of particular concern, ED visits for deliberate self-harm among pediatric patients are up 329%.¹

Breaking down the data further, the highest jump in mental health-related ED visits was among patients age 15 to 17 years, a group that experienced a 68% increase. Researchers reported that while these visits increased among both men and

women, the jump was particularly pronounced among women.

Mental health-related visits to the ED among girls were up 74%. Researchers noted that while ED visits for substance use disorders among children increased by 159%, the data show visits for alcohol-related disorders decreased by 39%.

During the study period (2007 to 2016), most of these visits took place at non-children’s EDs, a concern since data from the National Pediatric Readiness Project show these EDs tend to be less well-prepared to provide high-level care to pediatric patients, according to investigators.

The authors reported universal screening for suicidal ideation, which The Joint Commission requires, is an important step toward improving care quality for young patients with mental health disorders. More research is needed to determine how to optimally equip all EDs to manage pediatric cases. ■

REFERENCE

1. Lo CB, Bridge JA, Shi J, et al. Children’s mental health emergency department visits: 2007-2016. *Pediatrics* 2020; May 11;e20191536. doi: 10.1542/peds.2019-1536. [Online ahead of print].

‘Code Critical’ Process Speeds Care to Critically Ill Patients Who Present to ED

At Sutter Roseville Medical Center, a suburban California facility, 80,000 patients pass through its emergency department (ED) every year.

“We are a STEMI [ST-elevation myocardial infarction] center, primary stroke center with thrombectomy capability, and a level II trauma center,” shares **Andrea Perry**, RN, MSN, CNL, CEN, CPEN, the ED’s clinical nurse leader. “We’ve developed several alerts over the years to expedite evaluation and care delivery for these patients.”

However, a few years ago, staff grew increasingly concerned about

all the sick patients who do not fall neatly into one of the buckets established to trigger a quick response.

“Our providers were concerned that these patients did not warrant the same priority as those falling into the various alert categories. Nursing staff echoed these sentiments,” Perry explains.

For instance, while the CT scanner would be cleared immediately for a stroke or a trauma patient, that might not be the case for someone who experienced a fall, was on a blood thinner, and possibly in danger of a head bleed. If the individual

was a medical patient, that person likely would not receive such a quick response, Perry reports.

In 2016, the ED began working on a new alert process designed to ensure these medical patients not covered by the alerts already in place would receive the same type of rapid, timely response that the other alerts trigger. The resulting approach, dubbed “code critical,” has proven successful at accelerating care to a broad category of critically ill patients.¹

Additionally, the step-by-step improvement process has helped ED staff clean up one of their other alert

processes, making it more efficient and effective.

From the start, ED leaders were determined to take their time in developing the process because they understood it could significantly affect their department. They wanted to ensure all the kinks were worked out and all the details were in place prior to implementation.

“It helped that both our provider group and our nurses felt the need for a change. They were then part of the process development, running the experiments and observing the outcomes,” says Perry, noting the ED used traditional Lean processes in its quality improvement efforts. “This made it so much easier to implement the final process because there was already staff ownership.”

In the initial project stages, developers learned the hospital had a web-based secure messaging system that was used to trigger the pagers of catheter lab personnel when a STEMI patient presented for care. However, staff wondered if this system could do more. They did not want to contribute to alarm fatigue or to saturate the hospital staff with more calls to action via the hospital’s overhead intercom system.

Fortunately, the developers discovered this system could be customized to send messages or alerts in multiple ways to different stakeholders, depending on each individual’s personal preference. For instance, when a “code critical” patient comes in, an ED staff member

could electronically trigger the alert with one step. That alert would be communicated to all the relevant staff via preferred medium.

Different versions of the alert could be sent, too, depending on whether the individuals involved needed to rush to a specific bed in the ED or just needed to be aware that a “code critical” patient was in the ED. A nursing supervisor might not need to physically respond, but nonetheless needs to be aware that an intensive care unit (ICU) bed might be needed soon.

Consequently, developers designed two types of activations, all of which could be triggered with a single action: a “for your information” type of alert, and an alert that instructs the receiver to come now.

Perry says the web-based, secure messaging approach offers multiple advantages over a traditional pager system. Under the old approach, a staff member wishing to trigger an alert would call the hospital operator. The operator would page the alert on the hospital’s intercom system and send the page (using a code) to the specific team members needed.

“First, there is the potential for distortion of the message with the extra step of calling the operator to activate,” Perry observes. “In addition, we experience issues all the time with providers not receiving pages, with the antenna going down or with people who don’t have pagers being somewhere in the hospital where they can’t actually hear the page.”

ED phlebotomists may miss such alerts when drawing blood in the lobby where the overhead alerts are not announced, Perry offers.

“We had frequent issues where their pagers would fail, and [staff] would have no idea that a critical patient had arrived,” she says. “Providers would frequently ask for other methods of notification, such as receiving a text or call, but those options were unavailable. Using a secure-message system ... solved both of these issues.”

Under the secure-messaging approach, staff will activate the alerts themselves so the alerts will go out faster. There is less chance for the message to be distorted since there are fewer people involved in the communications chain, Perry notes.

“In addition ... contact information can be updated extremely easily, whereas updates to our pager system were onerous,” she adds.

Perry acknowledges the ED has experienced several network outages that complicate the department’s ability to send alerts using a web-based program. Nevertheless, an alternative pathway usually is available.

“[When] the hospital’s network is down, our cell providers usually aren’t,” she notes. “We are able to use our personal devices to send out alerts in a timely fashion when our computer systems fail.”

With physicians and nurses seeking a change in the way alerts were activated, the ED did not experience many roadblocks in convincing staff to embrace the change to a secure-messaging approach. However, ED leaders did find that implementing the “code critical” workflows necessitated a need for additional nursing staff. Certainly, asking for additional staff is challenging.

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.

“Thankfully, we collected data showing not only the volume of alerts, but also the impact the activations were having on timely patient care delivery,” Perry says. “That combination of data helped our administration see the need for additional resources.”

Specifically, Perry assembled pre-implementation data on all patients who likely would have triggered a “code critical” alert if that process had been in place in the second quarter of 2016. She excluded any patients who triggered other existing codes, such as sepsis, trauma, or STEMI.

Perry compared the preimplementation data to patients who triggered a “code critical” alert in the second quarter of 2017, after the new process had been implemented.

There were significant improvements in response times in the post-implementation group, with door-to-doctor times slashed by 60%, door-to-lab draw times down by

76%, door-to-intubation times lower by 59%, and time-to-imaging cut by almost 50%. Furthermore, “code critical” patients requiring admission to an ICU arrived there 20% faster than similar patients from the pre-implementation group.

When revisiting the data in the second quarter of 2018, Perry reports the improvements mostly were sustained. In some cases, there were additional improvements over 2017. She notes it took longer for patients to move upstairs in 2018 due to some patient surge issues.

The use of the “code critical” alert has increased steadily. Perry says when the ED went live with the approach in 2016, it was averaging about 40 of these alerts per month. Today, the ED averages 121 “code critical” alerts per month. Additionally, the ED has implemented the same process to its stroke alert procedure, and the department is achieving similar time-to-treatment gains.

Facilities may be experiencing similar time-to-treatment challenges regarding medical patients, or other patient groups may not be receiving the kind of timely care their conditions warrant.

Perry suggests including frontline staff early in any proposed improvement process.

“Get a group together that includes ED nurses and providers, and [staff members from] pharmacy, diagnostic imaging, respiratory therapy, laboratory, and any other [personnel] you think may need to respond,” she advises. “Have them be part of the solution. They will know about issues and barriers that leadership may not. They’ll bring innovative solutions to the table.” ■

REFERENCE

1. Perry A. Code critical: Improving care delivery for critically ill patients in the emergency department. *J Emerg Nurs* 2020;46:199-204.



The Latest and Greatest Is Here!

Written with Mission: Lifeline® hospitals in mind, **STEMI Watch 2020: Best Practices for Better Outcomes** provides physicians and staff with a concise and practical update on ST segment elevation myocardial infarction (STEMI).

WHAT'S INSIDE

- ✓ Expertly written articles
- ✓ Valuable ECG images
- ✓ 10 CME credits
- ✓ Concise PDF format

ReliasMedia.com



ED MANAGEMENT

PHYSICIAN EDITOR

Robert A. Bitterman, MD, JD, FACEP
President
Bitterman Health Law Consulting Group

NURSE PLANNER

Nicole Huff, MBA, MSN, RN, CEN
Clinical Manager
Santa Ynez Cottage Hospital
Emergency Department
Solvang, CA

EDITORIAL ADVISORY BOARD

Nancy Auer, MD, FACEP
Vice President for Medical Affairs
Swedish Health Services, Seattle

Kay Ball, PhD, RN, CNOR, CMLSO, FAAN
Consultant/Educator
Adjunct Professor, Nursing
Otterbein University
Westerville, OH

Larry Bedard, MD, FACEP
Senior Partner
California Emergency Physicians
President, Bedard and Associates
Sausalito, CA

Richard Bukata, MD
Medical Director, ED, San Gabriel (CA) Valley Medical Center; Clinical Professor of Emergency Medicine, Keck School of Medicine, University of Southern California
Los Angeles

Diana S. Contino, RN, MBA, FAEN
Executive Director, Accountable Care Organization
Memorial Care Health System
Fountain Valley, CA

Caral Edelberg, CPC, CPMA, CAC, CCS-P, CHC
President, Edelberg Compliance Associates
Baton Rouge, LA

Gregory L. Henry, MD, FACEP
Clinical Professor, Department of Emergency Medicine
University of Michigan Medical School
Risk Management Consultant
Emergency Physicians Medical Group
Chief Executive Officer
Medical Practice Risk Assessment Inc.
Ann Arbor, MI

Marty Karpel, MPA, FACHE, FHFMA
Emergency Services Consultant
Karpel Consulting Group Inc.
Long Beach, CA

Thom A. Mayer, MD, FACEP
Chairman, Department of Emergency Medicine
Fairfax Hospital, Falls Church, VA

Larry B. Mellick, MD, MS, FAAP, FACEP
Vice Chairman, Academic Affairs
Interim Section Chief, Pediatric Emergency Medicine
Assistant Residency Director
Professor, Emergency Medicine
University of South Alabama
Mobile, AL

Robert B. Takla, MD, FACEP
Medical Director and Chair
Department of Emergency Medicine
St. John Hospital and Medical Center, Detroit

Michael J. Williams, MPA/HSA
President, The Abaris Group
Walnut Creek, CA

Interested in reprints or posting an article to your company's site? There are numerous opportunities for you to leverage editorial recognition for the benefit of your brand. Call us at (800) 688-2421 or email us at reprints@reliamedia.com.

Discounts are available for group subscriptions, multiple copies, site licenses, or electronic distribution. For pricing information, please contact our Group Account Managers at groups@reliamedia.com or (866) 213-0844.

To reproduce any part of Relias Media newsletters for educational purposes, please contact The Copyright Clearance Center for permission:

Email: info@copyright.com
Website: www.copyright.com
Phone: (978) 750-8400

CME/CE INSTRUCTIONS

To earn credit for this activity, please follow these instructions:

1. Read and study the activity, using the provided references for further research.
2. Log on to **ReliasMedia.com** and click on My Account. First-time users must register on the site. Tests are taken after each issue.
3. Pass the online test 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 test, your browser will be automatically directed to the activity evaluation form, which you will submit online.
5. Once the completed evaluation is received, a credit letter will be emailed to you.

CME/CE QUESTIONS

- 1. At Henrico Doctors' Hospital, what change was made to help improve the care experience for patients with sensory sensitivities?**
 - a. Leadership approved the construction of a separate emergency department (ED) off campus to help these patients.
 - b. Staff painted patient rooms with calming colors.
 - c. These patients all are treated in an area with no equipment or any stimulants.
 - d. Designated staff make house calls for these patients whenever possible.
- 2. With both physicians and nurses seeking a change in the way alerts were activated, the ED at Sutter Roseville Medical Center did not experience many roadblocks in convincing staff to embrace a changeover to a secure messaging approach. However, ED leaders did find that implementing the "code critical" workflows necessitated a need for:**
 - a. more square footage.
 - b. more physicians cross-trained in critical care.
 - c. additional nursing staff.
 - d. an on-site lab in the ED.
- 3. Jennifer Gentry, a nurse practitioner at Duke University, says the greatest challenge she has faced in providing palliative care during the COVID-19 pandemic has been:**
 - a. isolating patients from their families.
 - b. the limited technological options for two-way communications.
 - c. securing more resources to manage surging demand.
 - d. educating frontline staff on how to provide primary palliative care.
- 4. Using a unique scoring system to evaluate the lungs of young and middle-aged COVID-19 patients in the ED, researchers found patients with the highest lung zone severity scores were how much more likely to require hospitalization?**
 - a. 2.3
 - b. 4
 - c. 5.6
 - d. 6.2