CASE MANAGEMENT ADVISOR™

COVERING CASE MANAGEMENT ACROSS THE ENTIRE CARE CONTINUUM

INSIDE

Relias Media
From Relias

OCTOBER 2020 Vol. 31, No. 10; p. 109-120

Remote Monitoring Technology Can Improve Efficiency

One organization saw 30% drop in emergency department visits

Community case management and care coordination services are important in the care of at-risk seniors. But healthcare organizations sometimes find it challenging to leverage resources.

One potential solution is to use technology, such as remote patient monitoring, to increase case management efficiency and improve outcomes.

Using a remote monitoring system can streamline services by warning case managers when patients' vital signs are outside expected ranges. It is efficient and does not waste resources, says **Carla Moore Beckerle**, DNP, APRN, ANP-BC, vice president of clinical programs at Esse Health in St. Louis.

The tool helped Esse Health's care managers reduce emergency department (ED) visits by 30% and reduce medical claim costs in a Medicare Advantage program by 19%. *(More information is available at this link: https://bit.ly/3hSaL43.)*

> USING A REMOTE MONITORING SYSTEM CAN STREAMLINE SERVICES BY WARNING CASE MANAGERS WHEN PATIENTS' VITAL SIGNS ARE OUTSIDE EXPECTED RANGES.

"Two years ago, we had a task force in our company, with physicians and executive leadership, to discuss how to be innovative around technology," Beckerle says. "One of the things we wanted to do was make a difference with our patients regarding their chronic disease aspect."

The organization found a solution with automated patient-reported

Financial Disclosure: Author **Melinda Young**, Editor **Jill Drachenberg**, Editor **Jonathan Springston,** Editorial Group Manager **Leslie Coplin,** Nurse Planner **Toni Cesta**, PhD, RN, FAAN, and Accreditations Director **Amy 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.

CASE MANAGEMENT ADVISOR™

***Case Management Advisor™*,**
ISSN 1053-5500, 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 *Case Management Advisor*, Relias LLC, 1010 Sync St., Ste. 100, Morrisville, NC 27560-5468.

GST Registration Number: R128870672.

POSTMASTER: Send address changes to:
Case Management Advisor
Relias LLC
1010 Sync St., Ste. 100,
Morrisville, NC 27560-5468

SUBSCRIBER INFORMATION:
(800) 688-2421
customerservice@reliasmedia.com.
ReliasMedia.com
Hours of operation: 8:30 a.m.-6 p.m. Monday-Thursday; 8:30 a.m.-4:30 p.m. Friday, EST.

JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

In support of improving patient care, Relias LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

1.5 ANCC contact hours will be awarded to participants who meet the criteria for successful completion. California Board of Registered Nursing, Provider CEP#13791. It is in effect for 36 months from the date of publication.

This program has been pre-approved by The Commission for Case Manager Certification to provide continuing education credit to CCM® board certified case managers.

TARGET AUDIENCE: This educational activity is intended for nurses and nurse practitioners who work in case management environments.

Opinions expressed are not necessarily those of this publication. 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 for specific situations.

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

symptom collection technology. The solution uses patients' own phones and can be expanded easily to fit the patient population. Patients simply send their symptoms via text message or phone call. They answer clinically relevant, evidence-based questions, said **Jason Roche**, MPH, director of marketing for CareSignal in St. Louis. Roche spoke about remote patient monitoring at the Case Management Society of America (CMSA) 30th Annual Conference and Expo virtual conference, held June 28-July 2, 2020.

For example, if the technology was used to monitor patients with chronic obstructive pulmonary disease (COPD), it would ask them about their breathing status. If it was used to track diabetic patients, it would ask about their blood glucose levels.

When patients report symptoms or measurements that are not in the expected range, the tool sends the information to their case manager or a clinical care team.

"Once people are enrolled, they receive text messages, and they can respond with their blood sugar and blood pressure values," Roche explained. "The care team receives all that member data. It shifts case management from the traditional outbound of picking up the phone and calling patients to check on them to an inbound model of where they now receive data from hundreds of patients."

Place Resources Where Needed

The tool enables case managers to put their time and resources where they are more needed. "We stratify that data and identify for care managers which patients are in the red, where an alert is sent to the care manager, and which are in the yellow, and those in the green, meaning they are doing fine on an ongoing basis and do not need any outreach," Roche said.

"What's exciting about using more accessible technology is it can reach a whole wide variety of patients," Roche continued. "The technology is designed to engage even the most challenging patient population."

The technology allows nurse case managers to increase their patient load by up to 15 times. One case manager monitored 100, but when the remote monitoring app was used, her caseload increased to 1,500 patients. "That care manager was still highly satisfied, not burned out, and not overwhelmed," Roche said. "It speaks to the power of being able to get this data in a manner that's automated."

EXECUTIVE SUMMARY

A technological case management tool enables case managers to engage in remote patient monitoring at 15 times the caseload they handled previously.

- A remote monitoring system gives case managers a warning when patients' symptoms and vital signs are outside expected ranges.
- Technology using a phone app is convenient for patients, allowing them to report their symptoms through text messaging or phone call.
- For one health system, the tool helped reduce emergency department visits by 30% among a Medicare Advantage population.

For instance, remote patient monitoring can keep low-resource Medicare and Medicaid patients engaged with their own health and self-care activities. "It allows the person who is using the app to learn and manage their care and symptoms, address their symptoms, and be proactive, instead of being a passive recipient," Beckerle says. "This tool has allowed our patients to be more engaged with their care and more engaged with their outreach."

Outcomes are better because patients are paying attention to their symptoms thanks to the continual communication through the app. "It brings the issue of their chronic disease to the top and forefront of their minds, and they address it," Beckerle says. "That is the biggest win we've had, and we didn't have to add 30 case managers. You can't have an infinite number of individuals in any company because you can't afford it. There are smarter ways of doing things, and this is one of the smartest ways we do it."

Health Center Case Study

STRIDE Community Health Center, a federally qualified health center in Denver, uses the remote monitoring tool to extend the reach of its care team. Results of a quality improvement study revealed STRIDE's patients with diabetes enrolled in CareSignal receiving the text prompts experienced a 2% average decrease in their A1c levels. About 19% of high-risk diabetic patients improved their blood glucose levels, while 77% of those with rising risk maintained their levels. Forty-five percent of high-risk patients with hypertension showed improvement. Patient engagement at three months was 60% for patients with diabetes and 50% for patients with hypertension.[1]

"STRIDE risk-stratifies the patient population and identifies which members need additional support," Roche explained. When case managers receive their report of patients who need help with maintaining their health, they can call the patients and find out what might be hindering their improvement.

Esse Health's remote monitoring program relies on the Johns Hopkins Adjusted Clinical Groups (ACG) system to identify at-risk patients with specific diagnoses, Beckerle says. The ACG model uses data from medical claims, electronic medical records, and demographics to predict a person's health over time. *(For more information, visit: https://www.hopkinsacg.org/.)*

"It indicates what kind of risk a person would have of hospitalization and death," Beckerle says. "That's our tool to say, 'This is where we'll outreach.'"

Once the tool identifies at-risk patients, they are enrolled to receive text messages — or, if they prefer, a phone call — at a regular interval. Both text messages and phone calls are made at a time that is convenient for the patient.

"If they don't get up until 10 in the morning, we don't text or call them at 8 a.m.," Beckerle says. "We center it around when they want, and that increases their participation."

When patients' data show they are outside the parameters of the disease process, their case manager receives a trigger message and calls the patient.

"It's all telephone — no home visits," Beckerle says. "But, if they need a home visit, it has to be someone from our team."

Often, the patient needs to see a physician. The case manager shepherds that process and helps the patient make a timely appointment. If the patient had to wait for an appointment — without the case manager's quick intervention — the patient might give up or end up visiting the ED, she says.

Case managers sometimes have to involve the team to solve a patient's health obstacles. For example, a patient with COPD may experience breathing problems because of a son who moved back home and smokes inside, Beckerle says.

"The son might also be an alcoholic who is using and stealing from his dad for his habits. He's not only physically harming his dad, but also is stealing from him," she says. "We would be alerted because the man is on the app, and the case manager calls him to find out why his numbers are off. She talks to him and sends a task to the social work team. A social worker goes out and deals with the issues by getting the son removed from the house."

This fictional scenario is similar to what the case management team sometimes has to deal with, Beckerle notes.

Medicare Advantage

Following a value-based model of care for the Medicare Advantage population, case managers are proactive and will send patients who are struggling with maintaining their health to their primary care providers.

"If patients need more interventions, they can be referred to a specialist," Beckerle says. "We take a lean approach, and we make sure we're being efficient."

Esse Health has enrolled about 1,200 high-risk patients on the remote monitoring program, and

there is high engagement. "Because we are a care management team, we are a high-touch model and have employees in hospitals, skilled nursing facilities, and we have social workers doing home visits," she says. "My team is addressing the needs where the patient needs them."

Patients enrolled in the remote monitoring program could be on the system for a few months to longer than a year. "For chronic conditions, like type 2 diabetes, you don't solve it in a couple of weeks," Roche said. "We see members stay on the system, and as they improve their clinical outcomes, we reduce the messaging we send them."

At first, the remote monitoring technology will send a patient with uncontrolled diabetes five messages a week. This declines as the patient improves. "The goal is to keep those members engaged as long as we can. If they are engaged, they don't need as many messages," Roche explained.

The messages include feedback and encouragement. For instance, a message might say, "Your two-week average is 10% lower than the last two weeks. Keep up the great work," he said.

For an example of the technology's messaging, case managers can text "case" to the app's number of (844) 837-9996, Roche noted.

If a patient's numbers and symptoms are worse, the app might ask if they would like to receive educational messages about healthy eating and physical activity.

"The goal is to create informed and empowered patients who are able to self-manage their chronic conditions with the support of their care team," Roche said. "It doesn't replace the expertise of the care management team, but simply augments what care managers do by providing them with real-time data." ■

REFERENCE

1. CareSignal. Case study: How the largest FQHC in Colorado prepared for the shift from fee-for-service to value-based care. https://bit.ly/31N2VmI

Individual Drive, Human Spirit Can Help Case Managers, Others Cope with COVID-19

Case managers, others are exhausted, drained

The COVID-19 pandemic has put healthcare workers in the spotlight, highlighting their heroism in the face of disease, severe illness, and death. Case managers are among the unsung heroes of the crisis, as they work to keep patients safe during transitions — sometimes in the face of daunting challenges.

"We're seeing a lot of healthcare workers, first responders, and people on the front lines giving that extra effort, helping patients," says **J. Gerald Suarez**, PhD, professor of the practice in systems thinking and design, and fellow for the Center for Leadership, Innovation, and Change at the University of Maryland.

EXECUTIVE SUMMARY

Healthcare workers across the care continuum are the pandemic's unsung heroes, facing the risk of severe illness and death as they work to keep patients safe and healthy.

- Despite exhaustion and fatigue, case managers and other healthcare workers are demonstrating resilience and a commitment to the human spirit.
- Employers need to take care of their staff to help them remain flexible and to prevent malaise.
- Safety is the first priority during the pandemic because safety creates confidence.

Case managers and other healthcare workers demonstrate the resiliency and commitment of the human spirit. "But they're feeling exhausted, chronically tired, drained, and that's when the first part of case management begins to fall down," Suarez says. "Being chronically fatigued is a gradual process: You begin to feel that slow, gradual sense of malaise."

At some point, fatigue becomes explicit. That is when people can break down and make mistakes. "The integration of patient and provider satisfaction cannot be separated," Suarez says. "Employers need to take care of their people so their people can take care of the patient."

Individual case managers need to change continuously and become flexible so they can collaborate across functions. "The key is to maintain

the constancy of purpose and the consistency of action because that will give you stability and reduce the variability in terms of the accuracy of care," Suarez explains. "In other words, you're changing people, and they become parts of the system you're changing."

Case management departments can facilitate resilience by looking at their organizations from a holistic perspective. If one part of the organization is not doing well, then the others cannot be doing well.

"This is relevant because we have too many disruptions, and the disruptions are creating tremors in every aspect of that organizational system," Suarez says.

For example, in the emotional system related to employees and patients, hospitals and other healthcare providers are handling more medical complexities and challenges than they did before the COVID-19 crisis. "Some hospitals are over capacity," Suarez says.

Stress can be gradual, often not obvious in its roots. "We tend to keep pushing ourselves to the point where it becomes explicit, and now we're all in trouble," Suarez says. "Leaders constantly reinforce their support and display authentic empathy and knowledge."

This is a simple concept, but leaders must not be detached from what their employees are experiencing. "There is no place to hide from this pandemic; our stress is at home, and employees need a safe space where they can share their concerns without retribution," Suarez says. "Employers need to be deliberate in offering them access to those conversations and to offer assistance so they can share."

Employers should employ someone whose role is to take care of the healthcare providers. "Leaders must continuously ask themselves, 'Are we exemplifying our values if we make these decisions?'" Suarez says.

Organizations commonly say they value their people, value their teams, and people are their greatest resource. "This pandemic is a moment when you say, 'Which decisions are supporting this?'" he asks. "If you cannot find the decisions, then that is a sign that you are creating that imbalance and are not supporting what you say you value."

Safety is the priority during the pandemic because safety creates confidence and shows staff someone has their back, Suarez says.

Transparency also is important. When managers are transparent with new policies, then their employees can process the information and relate to the challenges faced by decision-makers, he adds.

"They may contribute collectively with ideas, and I think this is presenting an opportunity to help the organization innovate," Suarez explains. "This could be a catalyst to transform business processes and ensure greater innovation and collaboration."

Case management leaders also can try to recognize their staff's work, sacrifice, and commitment. "We may be in such a fast-paced environment, there may be neglect in thanking people for that commitment to providing care under incredible experiences," Suarez says. ■

Keep Staff Healthy and Productive Using Leadership Techniques

Resilience is armor against crises

Case management leaders can help their employees maintain their health and productivity during crises, such as the COVID-19 pandemic, by following organizational policies.

One technique is to help employees change their perspective about what is happening to them and around them.

"We need to change our point of view and recognize that threats will be emerging, and this [crisis] is here to stay, one way or another," says **J. Gerald Suarez**, PhD, professor of the practice in systems thinking and design, and fellow for the Center for Leadership, Innovation, and Change at the University of Maryland Robert H. Smith School of Business.

These are examples of how case management leaders can help employees maintain a healthy and positive outlook:

• **Lead by example.** An important way to show staff support and create value in an organization is for managers and supervisors to lead by example.

"It sounds basic, but it is so powerful when senior leaders, who also are clinicians, join the frontlines and provide the care with their employees," Suarez says. "It accomplishes two things: One, it sends the signal that we are really a

team, and two, it allows leaders to connect firsthand with the challenges of frontline employees. If you are the CEO of the hospital, and you are also a physician, and you come to the frontlines and see that you don't have the equipment you need, that's different than getting a communication saying, 'We need more equipment.'"

It makes a much bigger impression on both the leader and the staff when the leader joins in. "Employees see there is no rank here, and this virus is not responding to organizational levels," he adds.

• **Value staff.** Organizations often establish principles and goals that say they value their employees, but their actions might not reflect those principles. One example Suarez saw concerned an organization making a personnel change that was not about performance.

"The executive looked at the organizational values, and he said to the board, 'It says here that we forgive mistakes. It says here we value our people. It says here that people are our most important asset, and we give them the opportunity to learn. We either change our values, or we help that person,'" Suarez recalls. "That's a very powerful way to behave according to what you say is important."

• **Encourage breaks.** Organizations should give case managers and other staff encouragement to take breaks for mindfulness, practicing relaxation techniques, and resting between busy work activities.

"This concept is no different than driving across the country and not stopping at a rest stop," Suarez says. "You have to pull over and can't keep driving because, eventually, you'll have an accident."

Case management leaders need to tell their employees to slow down and take a break. They can even provide information or resources for learning yoga or meditation, he suggests.

• **Reassure in an age of uncertainty.** The COVID-19 pandemic has created an age of uncertainty for everyone, but especially for healthcare employees. There is no known finish line, although everyone assumes there is one.

> "WE ARE ASKED TO KEEP RUNNING AND RUN FAST, AND THERE IS NO POINT WHERE WE CROSS THAT FINISH LINE."

"We are asked to keep running and run fast, and there is no point where we cross that finish line," Suarez says. "I think the new reality is we're beginning to see that we are in an arena where the concept of closure will be totally different. It's almost a game that has no end."

Healthcare workers can tell themselves everything will return to normal once a vaccine for SARS-CoV-2 virus is developed, but that is not necessarily true. "Even if we get a vaccine, there may be many people that say, 'I don't want to take it,' and then the vaccine will not make the virus go away," Suarez says.

"I think the world has shifted — just like it did after 9/11, when the security protocols were changed forever at airports," he continues. "Hospitals will be changed forever, and I think we need to reinvent ourselves and create organizations that will recognize that this is an ongoing threat to people."

There will continue to be new viruses and new mutations that pose a threat. Leaders should stop any talk about COVID-19 going away or having work return to normal. "It's not healthy for organizations to create that false sense of a transition to normalcy," Suarez says. "We should not compare this experience to the way it was."

Instead, everyone should change their perspective, recognize threats will continue to emerge, and the current pandemic will slow down, hopefully, and become more controlled, he adds. The goal is to reassure staff that everyone will adjust, adapt, and get through this crisis, becoming more resilient as a result.

• **Put on your own oxygen mask first.** "Sometimes, leaders forget to take care of themselves, and it's important for them to do so," Suarez says. "They're giving hope and energy and supporting everybody, and it gets very lonely at the top. They feel the same vulnerability and decision-making. It's important for them to also reflect, slow down, and take advantage of a safe space."

Leaders should be reminded they are not invulnerable to the pressures of the crisis. "They need to find that moment for themselves to recharge," he says. "If they're not doing well, nobody will do well."

It is like the oft-used metaphor of air flight instructions that explain if the cabin loses pressure, passengers should put on their own masks before helping others with their masks, Suarez explains.

"Leaders need to wear their mask first and then support the people they lead," he adds. "Leaders should embrace the same type of recommendations they are supporting their people with." ■

Rural Hospitals Struggle Amid Budgetary Constraints, Reporting Requirements

Hospitals across the United States have their hands full dealing with COVID-19 pandemic-related obstacles that are straining resources and increasing the stress levels of frontline providers. Meanwhile, hospitals in many rural communities are facing added concerns.

Many have seen their already-precarious financial health pushed almost to the breaking point while staff struggle to keep up with ever-changing medical advisories and reporting requirements. All this on top of meeting the care needs of their communities in an environment where many patients fear accessing care.

The pandemic is shining a harsh spotlight on America's rural healthcare infrastructure, making it difficult for policymakers to look away from structural and access-to-care problems that have long plagued America's sparsely populated communities.

Address Fatigue, Staffing

The rural hospitals of hard-hit Texas are facing unprecedented challenges with the COVID-19 pandemic, but they also are rising to challenges in ways they never have before, explains **John Henderson**, MBA, president and CEO of the Texas Organization of Rural and Community Hospitals.

"Historically, rural hospitals with patients that exceed their capacity refer and transfer patients to the larger urban hospitals," Henderson explains. "That transfer pattern has actually flipped, where rural hospitals are accepting transfer from the urban centers of both COVID and non-COVID patients to help manage bed capacity issues."

These new responsibilities have forced frontline and inpatient providers who work in rural facilities to stretch, Henderson observes. "But most are willing and wanting to be part of the solution, and rural Texas hospitals generally have bed capacity," he shares. "The stressful part is trying to staff [this surge]."

For instance, Henderson notes the CEO of one rural hospital indicated in late July he usually staffs for a med-surge inpatient census of five patients with no ICU beds. However, in that moment, the CEO had to handle 14 COVID-19 patients. "That is at the limits of what that small hospital can do," Henderson reports. "[The rural hospitals] are happy to do it, and I think they are meeting the need and will continue to do that, but fatigue is a factor."

Another limiting factor is the reality that many rural hospitals have no ICU capacity, which means they cannot support patients requiring ventilators. "That is not realistic for most of the rural hospitals in Texas," Henderson says. "Some have ICUs, and some have patients with ventilators, but that is probably the minority of rural hospitals in Texas."

Certainly, EDs are feeling the pressure, and clinician recruitment has been an issue for rural hospitals in the state since long before the pandemic, Henderson notes. "The hospital in Anahuac, TX [near the Gulf of Mexico] called me, and they generally have a very low-volume ED that they cover pretty easily with a single physician," he observes. "They've gone to two physicians 24/7 in their ED to handle the surge in patients."

One facility that has weathered more challenges than most is the hospital in Rio Grande City. In late July, providers in that border town experienced a "worst-case scenario." Not only was the facility filled to capacity with COVID-19 patients, staff were caring for victims of a tropical storm that recently swept through the area. "It was like a double-whammy," Henderson says. "They haven't buckled yet, but they are struggling."

The state has responded to the workforce shortages, sending thousands of nurses to the Rio Grande Valley. "That was certainly helpful. The reaction, though, has been staffing requests from all over Texas that the state is struggling to respond to," Henderson shares.

Boost Telemedicine

A silver lining of the pandemic response in Texas has been the progress on telemedicine. "Most rural Texas hospitals have embraced telemedicine; if not before the crisis, they have now accelerated their deployment and implementation [of telemedicine]," Henderson says.

One good example of how telemedicine has facilitated effective care involves a hospital in Dumas, TX, located in Moore County in the Panhandle where a COVID-19 outbreak at a meatpacking plant occurred. "They were able to lean on intensivists and hospitalist-type physicians who were not on site to manage these complicated, respiratory patients and keep them in house," Henderson explains.

Perhaps the biggest challenges facing rural hospitals in their efforts to battle the pandemic are their enduring budgetary concerns. "Before the pandemic, 44% of rural Texas hospitals had negative operating margins, making them very vulnerable," Henderson relates. "In April, I was getting calls daily from those that were truly on the ropes and couldn't make it through another payroll cycle."

Many of these facilities had maxed out their credit and were in real trouble. There were three hospitals in bankruptcy when the pandemic began. "I was worried we were going to have another round of closures," Henderson says.

However, the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which became law in March, funneled $10 billion specifically to rural hospitals and clinics, helping these entities avoid dire financial consequences, at least for now. Henderson says by early May, Texas facilities began enjoying the benefits of the CARES Act.

What should hospital administrators and policymakers learn from the pandemic experience? "One [thing] is the importance of access to care and hospital capacity. Some of the rural Texas hospitals that closed [prior to the pandemic] — I know we wish we had that capacity today," Henderson explains. "The healthcare system ... probably hasn't performed as well as we would like in a country that spends $4 trillion a year on healthcare. I think it is fair to expect a better result than we have seen."

Ease Burdens

Lisa Davis, MHA, director of the Pennsylvania Office of Rural Health, notes rural hospitals in her state did not struggle to activate their emergency plans, ramp up, or make any changes they needed to make in their facilities. However, she notes the administrative burden has been crushing. "All the activity within the federal agencies ... as well as our Pennsylvania emergency medical agencies — suddenly, everyone is on high alert. All of the agencies are reviewing all of their policies, procedures, and regulations and trying to get them aligned to address a pandemic," Davis explains. "All of those pieces are interrelated. One of the big issues that we saw with policy and regulation was just an enormous amount of communication coming out."

Particularly in the early days of the pandemic, a lot of the information would change from day to day, making it difficult for small, rural hospitals to keep up. "The reporting that needed to go to the federal government was really on the demand side: how many beds you are using, how many respirators are you are using, how much PPE you are using, and so on. Those reports needed to be submitted by 5 p.m. every day," Davis notes. "On the state side, they were really looking at the supply component: how much PPE do you have available, how many respirators do you have available, and how many beds do you have, what kind of staff do you have ... and those reports needed to submitted three times a day."

Alleviate Shortages

Unlike many rural hospitals in Texas that saw volume spikes, most rural facilities in Pennsylvania have experienced significant volume declines, particularly in the early weeks of the pandemic. "Emergency departments were essentially empty. People were not coming to the ED, even when they should have, whether or not [the issue] was COVID-related," Davis says. "Rural hospitals were not seeing a large number of COVID patients in general ... for those patients they were seeing, only a small percentage needed to be hospitalized. The rest were sent home to self-quarantine and recover there."

By mid-summer, elective surgeries resumed, but volume in the EDs of rural hospitals remained well below normal levels. As with the Texas hospitals, CARES Act funding helped tremendously in offsetting lost revenue. Still, rural hospitals struggled with properly accounting for all the funds. "The chief financial officer of one of our critical access hospitals said he was petrified to spend any of this money because he only has two people in the hospital's accounting office, and they have never had to deal with something like this," Davis relates. "The concern was being able to bring the funds in, spend them appropriately, and assure that the funds were not duplicating other pandemic funding or being used to support non-eligible types of services or expenses [for which] the hospital would then later be penalized."

Another problem is that some CARES Act funding was earmarked specifically for fee-for-service or traditional Medicare patients. "We have some hospitals that have no traditional Medicare [patients], just Medicare Advantage," explains Davis, noting Pennsylvania has one of the highest penetrations in the country of Medicare Advantage plan coverage. "They were seeing enormous deficits coming to them because what they estimated would be their funding from [the CARES Act] did not materialize."

Some rural hospitals in the state have faced shortages of testing

supplies and PPE. "One hospital administrator whose hospital is very close to the New York state border ... went up to Binghamton, NY, knocked on doors, and got PPE up there because he wasn't able to get it in [Pennsylvania]," Davis recalls.

As with Texas, the relaxing of regulations regarding telehealth has been hugely beneficial in expanding access to care to residents in rural parts of Pennsylvania during the pandemic. Of particular importance to the state is the expanding definition of telehealth to include phone encounters. "We are one of the states that is having real problems with access to broadband and internet across the state, especially in rural communities, so that has helped tremendously," Davis explains. "Also, commercial payers have stepped up to cover more telehealth services. That has been really helpful." Davis cautions that telehealth cannot deliver all the forms of care people require. "It is not a panacea ... but it sure does help," she says.

Prepare for Surges

Currently, while Pennsylvania is experiencing a bit of a breather from spikes in COVID-19 patients, the state is working with rural hospitals to help them assess what worked well from their emergency plans and what did not. That way, any adjustments can be made before potential surges occur.

Unlike in Texas, rural hospitals in Pennsylvania have not been called on to help manage capacity overflows from urban facilities. However, there is growing concern about potential COVID-19 outbreaks as many urban dwellers flee to the country to escape the virus and students return to campuses. "My office is at Pennsylvania State University. We have 23 campuses, many of which are in rural communities. We also have a state system of higher education that has 14 universities, all of which are in rural communities," Davis explains. "There is only a guess as to what this is going to mean for transmission of COVID-19 ... and the expectation is that this is not going to be good."

Rural hospitals in Colorado are struggling to combat public fear about accessing care. "We have definitely struggled with getting patients back in. Volumes in the ED continue to fluctuate in most of our [facilities]," observes **Michelle Mills**, CEO of the Colorado Rural Health Center in the State Office of Rural Health. "Some days, [volume] is close to what pre-COVID experiences were; on other days, it is way, way down."

Consequently, hospitals have been working with the communities they serve to help people understand that it is safe to come back and what procedures have been put in place to protect patients. The biggest concern is someone who is experiencing an emergency may not come in because he or she is afraid, Mills says.

It is true many rural hospitals in Colorado lack ICU capacity, but Gov. Jared Polis moved quickly and proactively to address the issue. "The state set up three separate locations to be able to help with overflow should additional ICU beds be needed," Mills says. "One [ICU overflow site] is in metropolitan Denver. There is one in the north part of our state and another site that is over on the Western Slope."

While many EDs in rural hospitals have used telehealth for stroke patients for a long time, other parts of the health system, such as rural health clinics, have faced challenges in "standing up" telehealth capabilities. For instance, there have been many questions about how to bill for telehealth visits and how to spread the word about telehealth. "Those things are continuing to be worked on right now. I think there are still some barriers in terms of acceptance by the community of that type of care," Mills says. "Of course, we continue to have some broadband issues as well that have made telehealth a little bit harder."

Rural hospitals in Colorado currently have sufficient supplies of PPE, but potential shortages of important supplies remain a concern. "Our state numbers [of COVID-19 cases] are starting to tick up again. There is some concern about whether there are going to be shortages again," Mills says. "There definitely was a difficult time at the start [of the pandemic] in getting PPE, but our state has been great about setting up a way for people to be able to work together to obtain [needed supplies] from each other."

Mills says the pandemic continues to highlight the vulnerability of rural hospitals. "We have been very fortunate in Colorado that we haven't had any rural hospitals close, but I think this pandemic has really heightened [that concern]," she says.

To shore up support, Mills wants to see passage of the "Save Rural Hospitals Act," a bill that, among other things, would facilitate funding for rural hospitals and enable critical access hospitals to transition to a new type of delivery model in communities that cannot support a hospital. "It would essentially look like a 24/7 ED with a clinic attached to it so that [the community] would still have primary care and emergency care," she explains. "Hopefully, Congress will work to make sure that [people] continue to have access to care in our rural communities." ■

COVERED Project Seeks to Protect ED Personnel from COVID-19

Few questions are of greater concern to emergency health personnel these days than how they can protect themselves from COVID-19.

It is an issue loaded with nuance. Much depends on such factors as how someone works in the emergency department (ED), what procedures they perform, what specific practices they use when performing those procedures, and how often they are exposed.

Nonetheless, a multidimensional study that seeks to capture all these complexities is well underway, with the goal of delivering solid answers to nurses, physicians, and even many nonclinical personnel who staff EDs across the United States.

In the COVID-19 Evaluation of Risk in Emergency Departments (COVERED) project, investigators from UCLA and the University of Iowa are aiming to identify which practices and which pieces of personal protective equipment (PPE) make the most difference in preventing personnel from acquiring COVID-19.

The Centers for Disease Control and Prevention (CDC) is funding the project with a $3.7 million grant, enabling researchers to enroll and follow participants at 20 academic medical centers.

The project is a collaboration between EMERGEncy ID NET, a CDC-supported network of 12 EDs studying emerging infectious diseases, and the National Emergency Airway Registry (NEAR), a multicenter group studying the intubation of patients in the ED.

"The question of how we protect healthcare workers is something that we have been interested in throughout the COVID-19 pandemic," explains **Nicholas Mohr**, MD, MS, clinical professor of emergency medicine, anesthesia — critical care, and epidemiology at the University of Iowa and co-principal investigator of the COVERED study. "Through the two national networks, we pulled together this collaborative with the goal of really having a national platform to be able to understand what the risk is of COVID-19 transmission to healthcare workers across sites around the country."

To understand the granularity of this investigation, Mohr says 1,600 participants have been divided into four groups:

- emergency physicians who perform endotracheal intubation in patients with confirmed COVID-19 infections;
- emergency physicians who do not perform endotracheal intubations;
- emergency nurses;
- nonclinical ED staff.

Specifically, Mohr notes there are about 800 physicians, 400 nurses, and 400 nonclinical staff participating in the study.

"They tell us information every week about their use of PPE and how many patients they are taking care of in certain risk groups. They're also telling us what their practices are around certain procedures," he shares. "For instance, one of the procedures we are very interested in is endotracheal intubation, which involves putting people on ventilators. We know that is a high-risk practice. We also know that it is a life-saving procedure."

Mohr states that from prior work involving severe acute respiratory syndrome and Middle East respiratory syndrome, researchers know those who performed endotracheal intubations were at significantly higher risk of contracting these coronavirus infections.

Consequently, when participants in the COVERED study perform endotracheal intubations, they are asked to provide information such as what type of equipment they used, how they used the equipment, how long they were in the room, what types of countermeasures they were using, what types of PPE they were wearing, and other patient-specific details.

Similarly, regarding CPR, Mohr notes participants are reporting how it is performed, whether people are performing CPR in special rooms in their ED, whether specific filters are used to protect clinicians, or whether special masks are used. "All of that information is helping us to understand what the risk is throughout the study period," he says.

Furthermore, in addition to inputting data, participants are providing blood samples and nasal specimens regularly. This will enable investigators to determine which participants have been exposed to COVID-19 and which participants have developed the disease over the course of the study.

Specifically, participants submit blood and nasal samples at the start of the study, at week two, and then at week four. After that, participants submit samples for testing every four weeks for a 20-week period. However, Mohr stresses participants are reporting on what their exposures

are every week. "They log in to the system [we have created], and tell us how many patients they have seen and what kind of procedures they have done," he says. "Then, with certain procedures, even every day they are telling us about those procedures and about the equipment they used."

By collecting information at the time of possible exposure, investigators believe the data quality is much better than what has been collected during previous studies. The authors of that work asked participants to recall well after the fact what they were doing and how they were practicing at the time when they might have been infected.

The nonclinical participants in the study include reception staff, clerks who page, financial services people, and some social workers, depending on their specific job.

"We [are following] a cohort of people who work in the area of the ED, but who don't go into patient rooms or provide clinical care and aren't within six feet of patients routinely," Mohr says. "We have tried to take into consideration how different staff function within each institution, but we really wanted people who are within an ED but don't have patient-facing care responsibilities."

Under such criteria, environmental services staff are not part of this study because this is a group that faces different types of risk than nonclinical staff investigators are following. "The [environmental services sector] is clearly a higher-risk group," Mohr notes.

In addition to specific data points about individuals, COVERED investigators also are collecting information from participating facilities about whether they are experiencing shortages of PPE, and whether they are sanitizing PPE that was originally intended for single use. "We are certainly capturing a window of time where physicians and nurses are taking care of patients with COVID-19, and we are tracking ... how health systems have responded to those challenges dynamically," Mohr says. "That is something we can include in our analysis as we try to understand what the risk factors are."

With so much information to distill, interpreting the results will involve a fair amount of complexity.

"We are collecting more than a thousand data points from each of our 1,600 participants. In the course of the project, we are collecting blood and nasal specimens seven times from all of these participants, which [amounts to] almost 12,000 COVID-19 tests," Mohr says. "As the study goes on, we have people enrolled in the cohort who continue to be diagnosed with COVID-19. That is the type of information we will be using to really try to nail down what the quantifiable risk is, and how we can reduce that risk to certain healthcare providers in the future."

Despite the complexity involved, investigators anticipate they will be able to share their results this fall. For ED personnel eager to learn how they can most effectively protect themselves, that may seem too late. Mohr argues that from a biomedical research standpoint, the COVERED study has unfolded lightning-quick.

"The way this project has rolled out has just been unprecedented. From the time we first had the idea and started talking with the CDC to the time we had a funded project was just three weeks," Mohr reports. "Even from the time that our study had been funded until the time we launched and enrolled participants was just another four weeks."

While it may feel like the study is plodding along, it is moving much faster than any other large public health surveillance project, at least in terms of trying to understand a pandemic while it is happening, according to Mohr. "The opportunity to be able to test healthcare workers prospectively during the course of the pandemic while we collect this really detailed data is a once-in-a-generation opportunity for us to learn how to take care of patients better in the future," he says. "But it is something that really requires a little bit of time to pass so that we can understand what those exposures are and how those translate into risks." ■

CASE MANAGEMENT ADVISOR™

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 onto 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.

CE QUESTIONS

1. **A remote monitoring system can streamline case management services by warning case managers when patients' vital signs are outside expected ranges. According to Carla Moore Beckerle, DNP, APRN, ANP-BCC, the tool has helped Esse Health's care manager reduce emergency department visits by:**

   a. 13%.
   b. 19%.
   c. 28%.
   d. 30%.

2. **Since the start of the COVID-19 pandemic, case management departments have experienced challenges that create stress and fatigue in staff because:**

   a. staff are being furloughed at about two-thirds of case management organizations.
   b. there are more medical complexities and challenges, and some hospitals are over capacity.
   c. more than half of case management leaders say they will retire in 2020 because of the pandemic.
   d. one-fourth of case managers have contracted COVID-19.

3. **Which techniques can organizations use to help case managers and other staff maintain their mental readiness and health, according to J. Gerald Suarez, PhD?**

   a. Organizations can give case managers breaks to practice mindfulness and relaxation techniques.
   b. Organizations can buy coupons for entertainment venues that staff can visit after the pandemic ends.
   c. Organizations can provide an in-house counselor for staff.
   d. Organizations can screen staff for resilience and the ability to bounce back from crises.

4. **A remote patient monitoring system can help nurse case managers increase their patient loads. It does not appear to increase:**

   a. high staff turnover.
   b. mental health issues.
   c. case manager burnout and feeling overwhelmed.
   d. patient dissatisfaction.