



→ INSIDE

Using telemedicine to bring pediatric emergency medicine expertise to community hospitals 102

How peer responders help alleviate distress among caregivers following a traumatic patient event 103

SEPTEMBER 2017

Vol. 29, No. 9; p. 97-108

Rural Hospitals Connect Local Providers With Experienced Emergency Physicians

Developers note that the success of a telemedicine program over eight years offers a model for other regions struggling with severe emergency medicine staff shortages

For years, there has been a shortage of emergency physicians, straining rural hospitals, many of which use family practice physicians or advanced practice providers to cover shifts in the ED. Although many of these providers are highly experienced, there can be instances in which especially newly minted providers are overwhelmed by cases requiring a high level of emergency care expertise. Transferring patients to a larger, tertiary care facility may be an option in some cases, but there are times when recovery or even survival depends on swift treatment.

In such cases, it would help if providers at these small, rural facilities had 24/7 access to experienced, board-certified emergency physicians at a moment's notice through a telemedicine hookup. This arrangement exists in the Great Plains where designated emergency physicians at Avera McKennan Hospital, a tertiary care

facility in Sioux Falls, SD, have been available to consult on cases at small, rural hospitals in multiple states through the Avera eCARE telemedicine network.

Beginning with just eight participating hospitals in 2009, the tele-emergency network now includes 150 hospitals, with more scheduled to sign on soon. Further, while the small hospitals that use the service do not necessarily reap direct financial benefits from the approach, studies show that patients and local economies benefit through savings related to avoided transfers and other expenses.

Developers note that the main benefit from the approach (and the primary the reason why rural hospitals pay for this service) is better patient care. They also suggest that the success of the network offers ample evidence that telemedicine could provide answers to other regions struggling to maintain ready access to emergency care expertise.

NOW AVAILABLE ONLINE! VISIT AHCMedia.com or **CALL** (800) 688-2421

Financial Disclosure: Physician Editor **Robert Bitterman**, Author **Dorothy Brooks**, Editor **Jonathan Springston**, Nurse Planner **Diana S. Contino**, Executive Editor **Shelly Morrow Mark**, and AHC Media Editorial Group Manager **Terrey L. Hatcher** report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies having ties to this field of study.

ED Management®

ISSN 1044-9167, is published monthly by AHC Media, a Relias Learning company
111 Corning Road, Suite 250
Cary, NC 27518
Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices.

POSTMASTER: Send address changes to:

AHC Media, LLC
PO Box 74008694
Chicago, IL 60674-8694

SUBSCRIBER INFORMATION:

Customer Service: (800) 688-2421
Customer.Service@AHCMedia.com
AHCMedia.com

EDITORIAL EMAIL ADDRESS:

jspringston@reliaslearning.com

SUBSCRIPTION PRICES:

Print: U.S.A., 1 year with free *AMA PRA Category 1 Credits™*: \$519. Add \$19.99 for shipping & handling.
Online only: 1 year (Single user) with free *AMA PRA Category 1 Credits™*: \$469
Outside U.S., add \$30 per year, total prepaid in U.S. funds

Back issues: \$82. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue's date. GST Registration Number: R128870672.

ACCREDITATION: Relias Learning 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.

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

Relias Learning designates this enduring material for 1.25 *AMA PRA Category 1 Credits™*.

Physicians should claim only credit commensurate with the extent of their participation in the activity.

Approved by the American College of Emergency Physicians for a maximum of 1.25 hour(s) of ACEP Category I credit.

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 executive editor, 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

EXECUTIVE EDITOR: Shelly Morrow Mark

AHC MEDIA EDITORIAL GROUP MANAGER: Terrey L. Hatcher

SENIOR ACCREDITATIONS OFFICER: Lee Landenberger

Copyright© 2017 by AHC Media, a Relias Learning company. ED Management® is a registered trademark of AHC Media, a Relias Learning company. The trademark ED Management® is used herein under license. 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.

(See story about pediatric emergency medicine on p. 102.)

Surmount Regulatory Hurdles

Although the telemedicine network operates well now, developers acknowledge they had to surmount multiple barriers to make the approach feasible. Obtaining the funds to nurture the effort has been an ongoing challenge, but grants have arrived from multiple sources. Of particular importance was \$6.2 million in funding from the Helmsley Charitable Trust in 2009.

"That money was critical to the success of our network," observes **Mandy Bell**, MHA, eCARE quality and innovation officer at Avera eCARE in Sioux Falls, SD. "We were able to hire board-certified emergency physicians to be available around the clock pretty much instantly so that they weren't also working other jobs in the hospital's main ED where they would have to be pulled away from the bedside," she explains.

The money also went toward putting the robust information technology and wireless networks in place so that two-way video communications between the tertiary care hub and participating rural hospitals would be high quality and private. However, in the early days of the project, developers were unsure whether the approach would catch on and expand.

"It was a brand new concept, and it took a lot of conversations with providers and nurses about whether this was something that they would feel comfortable having in their rural EDs, whether this was something they would actually use in the case of an emergency, and whether their administrations would eventually be willing to pay for the service," Bell

notes. "From day one, we did have the participating facilities start to pay what we call a monthly service fee for access to the network, but early on, grant funding was taking care of most of that cost."

Another barrier was related to the fact that the telemedicine hub provides service to hospitals in multiple states; therefore, the providers delivering the service must be licensed in all those states.

Take Note of Emerging Needs

With eight years of experience and an expanding market, network administrators have a good understanding of how and when the emergency telemedicine network is used most often, and they have come to understand the emerging needs of many of the small, rural hospitals that use the service.

"The trend that we have picked up on as we work with hospitals in the Great Plains area is that they have these very seasoned physicians with 30 or 40 years of experience who are retiring ... and it is hard to recruit and retain a practice in a rural environment with someone who did not actually grow up in a rural environment," Bell says.

Many communities increasingly rely on mid-level providers to fill the staffing needs in the community, but that leaves fewer physicians available to take calls in the ED.

"We have some hospitals where the physicians used to be on call every other night, and that was burning them out, especially the new physicians with young families," Bell shares. "They were really struggling to maintain a work-life balance with that onerous call schedule." Such demands make it difficult to

recruit physicians into rural settings, so many hospitals in these regions staff their EDs with advanced practice providers. In these arrangements, an experienced, board-certified emergency physician who is accessible via telemedicine makes everyone involved more comfortable, Bell explains.

“It makes the [nurse practitioner] more comfortable with the scenario, and it makes the rest of the medical team more comfortable because while they know that [the on-site practitioner] can handle almost anything, there are going to be those few things that they are really going to want help for, and now they can get that through telemedicine,” she says.

Other rural hospitals staff their EDs with family practice physicians who primarily work in primary care, and they too can encounter patients in the ED requiring procedures or care that they may not feel well-equipped to provide. “Sometimes, we will come to facilities where the physicians have not had the chance or even the need to do an advanced airway procedure for many years,” Bell explains. In these cases, an emergency physician who routinely performs that procedure who can help coach others through the process can make a huge difference in the patient’s care, she says.

In addition to using two-way audiovisual communications during such patient encounters, the emergency physicians operating out of the hub also have access to imaging from the local hospital as well as electronic medical records, if needed. They may also use a video laryngoscope. “We can tie our video unit into that video feed so that our remote physicians can also view the airway when [the on-site provider] is trying to place an airway tube in the right location,” Bell explains. “Those are really intense situations, especially if you are deal-

ing with a difficult airway because of trauma or other factors with the patient.”

Develop Protocols

Clinton MacKinney, MD, MS, an emergency physician practicing in Little Falls, MN, and deputy director of the Rural Telehealth Research Center in the Department of Health Management and Policy at the University of Iowa in Iowa City, IA, explains that the most common calls into the emergency telemedicine network involve heart attacks, strokes, multiple trauma, and behavioral health concerns. This largely aligns with a 2016 analysis conducted by MacKinney and colleagues, who examined what clinical situations typically trigger tele-emergency consultations.¹

EXECUTIVE SUMMARY

To compensate for a severe shortage of experienced emergency physicians, small, rural hospitals in the Great Plains are taking advantage of a Sioux Falls, SD-based emergency telemedicine network to connect local EDs, which often are staffed by mid-level providers or primary care physicians, with experienced, board-certified emergency medicine physicians whenever they need added expertise. This approach has grown from eight participating hospitals in 2009 to 150 hospitals today, with more expected to sign on soon.

- The Avera eCARE telemedicine network operates out of Avera McKennan Hospital, a tertiary care facility in Sioux Falls, SD, providing emergency medicine consultations to rural hospitals in multiple states. Hospitals pay a monthly fee for access to the tele-emergency services.
- Barriers to the approach include the high cost of implementing two-way, audiovisual communications that are private and reliable to all participating hospitals, and properly licensing all the emergency medicine physicians operating out of the hub.
- Studies show that while the tele-emergency service offers financial benefits to patients and the local economy, rural hospitals typically do not share in these financial dividends. The prime motivation for offering the service is to facilitate access to emergency medicine expertise and to improve care quality, although some experts observe that there also may be benefits in terms of the effects on physician retention.

MacKinney notes that family practice physicians or nurse practitioners on duty in the ED may not be comfortable handling these types of complex or time-sensitive cases. “In those situations, it is really nice to have those emergency physicians from the hub looking over your shoulder, offering help when you want it, and also getting out of the way when you don’t want it,” he says. “That is critically important to a successful tele-emergency program, how the folks at the hub treat the professionals out in the rural area.”

MacKinney adds that very little training or preparation is needed on the part of the on-site clinician to use the service. They can simply press a button, and an emergency physician from the hub will be available to consult, generally in a matter of seconds.

“Typically, there is a flat screen monitor that is 50 inches or so

diagonal, a camera that can be manually controlled, and a surround-sound-type microphone that is usually hung right over the bed where the patient would be,” MacKinney shares.

Once the equipment is set up and two-way communications capability is established in a rural hospital setting, it is helpful for the local staff to devise some protocols around who will use the system and when it will be activated. How the system is used varies quite a bit depending on the characteristics of the facility and the experience level of the staff, MacKinney relates.

“In some rural EDs, they have very low volumes, but periodically they will have a severe or serious case,” he says. “But the person who is staffing the ED may not be as experienced in emergency medicine as the clinicians on staff in a larger hospital,” he says. Also, some hospitals have more than one room set up for telemedicine encounters, he adds.

Employ Communications Training

Even experienced emergency clinicians find value in using the telemedicine service on occasion. For instance, MacKinney has called into the hub on two occasions. “In one situation, we had a young man who had a cardiac arrest, and it was complicated because he was coming in and out of cardiac arrest frequently,” he explains. MacKinney consulted with the emergency medicine physician at the hub to get his take on whether there was something he missed or anything else he could do. The hub physician reassured MacKinney that he was doing all the right things.

The second case involved a man who overdosed on blood pressure

(BP) medication, and MacKinney was having a tough time getting his BP up. “We had the [ED physician] from Sioux Falls, SD, engaged, and we had a pharmacist from our hospital down there with us, and it was just very complex,” MacKinney recalls.

In these atypical situations, it can be helpful to have the telemedicine physicians available to discuss treatment approaches, MacKinney observes. “They know how to be consultative, professional, and helpful, not questioning or judgmental,” he says.

In addition to their experience and board certifications, the physicians providing the telemedicine consultations from the hub receive added training on how to work effectively with their remote practitioners, Bell explains. “That is really about communication strategies and dealing with the fact that you keep your hands in your pockets. You can’t reach through the TV and do any of these procedures yourself, so how do you personally handle that feeling of stress,” she says. “The local provider is remaining in control of the patient. It is their patient, and we are there to help them as they are asking for help so they are never feeling like we are there to judge them or disagree with them in front of the patient.”

When the telemedicine physician disagrees with the on-site practitioner, he or she will ask to speak with the practitioner on a private phone line, Bell explains.

The emergency care telemedicine hub tends to be busy when regular EDs are busy, with the peak time generally between noon and 2 a.m. most days, Bell explains. Interestingly, the weekends tend to be less busy, perhaps because during this period many rural hospitals staff their EDs with locum tenens providers who are less familiar with the telemedicine

network or how it works, she says. One critical aspect of the telemedicine service is that the emergency physicians are not dividing their time between local emergency patients and telemedicine calls. They are devoted only to handling the calls that come in from participating hospitals within the network.

“If [a practitioner] has a multi-victim accident coming in, they are not going to want to wait 12 minutes for our provider to wrap up whatever he or she is doing at the bedside,” Bell says. “In an emergency, you need somebody right now, and if we are going to provide that level of support, we’ve got to be there right away.”

For instance, Bell recalls two incidents during which immediate assistance from the telemedicine physicians was critical. The first case occurred several years ago, when the telemedicine network was still in its infancy.

“A woman had been bitten by a rattlesnake and was taken to the ED where [clinicians] gave her antivenom. She went into anaphylaxis, so her throat swelled and she couldn’t breathe on her own,” Bell notes. “It was a life-threatening situation, especially given that a flight team was so far away.”

The telemedicine physician helped the on-site provider with an airway-clearing procedure so that the patient could be transported safely to a bigger facility to handle the situation.

In the second case, a young girl was in critical condition following an all-terrain vehicle accident. “She was in critical condition when she came into the ED,” Bell explains. “Our providers were able to walk [the local practitioners] through how to place a chest tube to help the patient’s lungs inflate.” The girl still had to be transported to a larger facility, but

the telemedicine physicians provided critical expertise in a life-threatening situation, Bell adds. As the program has grown and progressed, administrators have figured out new ways to offer value to participating hospitals and to be a more integrated part of the local healthcare teams. For instance, hub providers will participate in debriefings after significant events in a community.

“If the hospital has had a community member who has had a really bad outcome, we can bring in a chaplain to help walk through the event,” Bell explains. “We will help [the local team] get through some of those challenging first days.”

Determining how to be a part of the local rural healthcare team even though one may not be there physically has enabled the program to thrive, Bell offers.

“In many places, we are on a first-name basis with the local care team,” she says. “We feel like we are alongside them in the trenches when the worst happens.”

Consider Effect on Care Quality

The telemedicine service is still funded through monthly service fees paid by the participating rural hospitals. One new study shows that the approach offers financial dividends to patients, primarily by enabling them to avoid the costs associated with transfer to a larger facility. Researchers note that staying in a local hospital saves patients about \$5,600 in a given year, considering the costs associated with transfers, missed work, lodging, and other expenses.²

However, with the high cost of operating the service, local hospitals do not necessarily enjoy any direct financial benefits, although there is a

boost to the local economy, according to investigators. But some note that anecdotal evidence suggests there is an educational benefit to the local providers who take advantage of the telemedicine service.

“Telemedicine may be helping them stay up to date with information,” observes **Nabil Natafji**, PhD, MPH, CPH, a research associate and adjunct assistant professor in the Department of Health Management and Policy at the University of Iowa College of Public Health in Iowa City, IA, and a co-author of several studies on the effects of the telemedicine network. “For instance, if [a provider] connects for a specific case regarding cardiac arrest, and they receive recommendations ... they would know the next time they see this presentation or a similar diagnosis what kind of physical exams and treatment they should provide to the patient.”

MacKinney suggests there are some indirect ways that rural hospitals benefit financially from using the emergency telemedicine service. In particular, he points to savings in recruitment and retention costs.

“We have anecdotes that rural hospitals have been more successful in recruiting providers to their areas because of the availability of tele-emergency medicine,” he says. “When something really bad is going on, you may feel alone, so it is very nice to have the collegial support available to you.”

A second benefit is a lesser-known rule in critical access hospitals that enables the tele-emergency hub to be the backup physician for a physician assistant or a nurse practitioner working in a rural ED, MacKinney explains.

“Therefore, a hospital would not have to pay for a backup physician to be on call in the ED. They could simply use the tele-emergency hub as

the backup,” he says. However, while there are some financial advantages, MacKinney stresses the main reason to use tele-emergency services is not financial.

“It is to improve the quality of care, and to help those providers who are working in resource-poor areas and don’t have staff or backup,” he says. “Not every rural ED can have available an emergency medicine-trained physician and all the support systems he or she is accustomed to,” he says. “The compromise, I think, is tele-emergency care.” ■

REFERENCES

1. Ward MM, Ullrich F, MacKinney AC, et al. Tele-emergency utilization: In what clinical situations is tele-emergency activated? *J Telemed Telecare* 2016;22:25-31.
2. Natafji N, Shane D, Ullrich F, et al. Using tele-emergency to avoid patient transfers in rural emergency departments: An assessment of costs and benefits. *J Telemed Telecare* 2017; doi: <https://doi.org/10.1177/1357633X17696585>.

SOURCES

- **Mandy Bell**, MHA, eCARE Quality and Innovation Officer, Avera eCARE, Sioux Falls, SD. Email: mandy.bell@avera.org.
- **Clinton MacKinney**, MD, MS, Emergency Physician and Deputy Director, Rural Telehealth Research Center, Department of Health Management and Policy, University of Iowa, Iowa City, IA. Email: clintmack@cloudnet.com.
- **Nabil Natafji**, PhD, MPH, CPH, Research Associate and Adjunct Assistant Professor, Department of Health Management and Policy, University of Iowa College of Public Health, Iowa City, IA. Email: nabil-natafji@uiowa.edu.

Telemedicine Links Pediatric Emergency Physicians With Practitioners in Community Hospital EDs

Although emergency physicians are in short supply, pediatric emergency specialists are even harder to come by. Most work at tertiary care pediatric centers where they treat young patients with complex emergency care needs, many of whom have been transferred to these facilities from community hospitals. However, what if young pediatric patients in community hospitals could be evaluated by physicians who specialize in pediatric emergency medicine without the need for a transfer?

It's an approach that is just getting started in the Robert Wood Johnson University Hospital (RWJUH) system, based in New Brunswick, NJ. Bristol-Myers Squibb Children's Hospital (BMSCH) has established a secure, remote hookup with the ED at RWJUH's Somerset, NJ, campus, and plans are in place to eventually expand the approach so that other community hospitals in the region can take advantage of the pediatric emergency medicine expertise at BMSCH as well.

"Telemedicine services have been going on for the past couple of years, mostly in the realm of tele-psychiatry and tele-neurology, but they have also been used in critical care ... to bring scarce expertise to locations where there can't always be that presence," explains **Richard Brodsky, MD**, director of pediatric telemedicine at BMSCH. "And that is almost a direct translation of what we want to do for pediatric emergency medicine."

Brodsky explains that the EDs at community hospitals generally are staffed by adult emergency physicians, or there may be

pediatricians who are taking care of pediatric patients in the ED. "Most of the time those physicians are excellent and can provide excellent care, but occasionally you are going to want someone who has a more sophisticated understanding and greater expertise in this particular field of pediatric emergency medicine," he says.

The physicians at BMSCH and many other tertiary care children's hospitals are fellowship-trained pediatric emergency medicine physicians, Brodsky observes. "We can do a remote examination and offer the advice of an expert without having the expert travel to the community hospital or the patient transferred to [our] tertiary care facility," he says.

Use for Middle-ground Patients

The types of cases that tend to prompt telemedicine encounters with a BMSCH pediatric emergency physician encompass the uncertain middle ground, Brodsky observes. "The very simple things like rash, runny nose, cough, and fever are not the things that should require an expert, but at the same time, we do not provide services for things like codes, heart failure, or cases where children are obviously in very severe distress and need timely care," he says. Adult emergency physicians generally are experts at handling codes and instances of severe distress, he says.

"The area where [community hospital EDs] generally need someone who is more specially trained is in the

gray zone in between these two areas," Brodsky says. These patients tend to present with more complex issues, but there is no obvious, immediate need for transfer, he says.

"For example, it might involve a patient with significant abdominal pain where the emergency physician is not quite sure whether this is something he or she needs to investigate for appendicitis, constipation, or something along those lines," Brodsky explains.

Alternatively, it could be a patient who has just recovered from a seizure, and the emergency physician is not sure whether this patient should undergo more testing or whether follow-up testing can be conducted as an outpatient, Brodsky notes. "It could also involve a child who has a fever, but that fever is hitting this child very hard, and they look more ill than their exams or their tests indicate," he says. "In these types of middle-ground patients, some more experienced judgment might be necessary to help with the disposition," he says.

Fine-tune Operations

Currently, the telemedicine encounters are available from 8 a.m. until 8 p.m., but administrators hope to make the service available on a 24/7 basis soon. The physician who is charge of the ED at BMSCH handles the calls. "We have a command center that is inside our ED, and [the physician] will go to the command center to take the call," Brodsky explains. "However, we do have someone on backup to handle

any issues if we get very busy.” For instance, the backup physician would step in if the ED at BMSCH is handling something severe at the same time a call comes in for a telemedicine encounter, Brodsky notes.

These are still early days for the program, leaving time and space to work out operational issues as the telemedicine service expands to more hospitals in the region. “I am expecting that when we have our service fully up and running to multiple hospitals in the area, we will be receiving a volume of several calls a day,” Brodsky predicts. “That is a good volume to expect with a very robust service.”

For now, BMSCH is working closely with Somerset Hospital to fine-tune the telemedicine approach. “We have such a good relationship with [the providers at Somerset] that it is very easy to start our first partnership with them,” Brodsky observes. These early efforts will help ensure a smooth rollout to other facilities, he says.

While the financial incentives are not aligned perfectly to provide remote pediatric emergency medicine expertise to hospitals in the region, it is a logical next step for telemedicine, Brodsky shares. “It is a needed [service] because of the scarcity of the expertise,” he says. “Normally, a significant expert in pediatric emergency medicine only practices at a tertiary care pediatric institution.”

To be able to provide this level of expertise for the community makes sense for both providers and patients, Brodsky observes. The alternative involves an expensive transfer process whereby the patient is brought to BMSCH and potentially admitted there rather than in his or her own community, closer to family. “If we can avoid even one or two of those transfers in a brief period of time, then it saves medical dollars and it saves the system money in general,” he says. “It is not only good for the patient, family, and community, it is good for the outside ED because they are able to provide better care

for their patients.” Brodsky adds that the service works to the advantage of BMSCH as well because it enables the hospital to preserve its resources for children who are in greater need.

There is a bill making its way through the New Jersey legislature that would enable telemedicine encounters to be reimbursed the same as in-person consultations, and there is talk of even more comprehensive federal legislation, Brodsky notes. Changes of this nature would fuel the creation of more telemedicine programs, but Brodsky says BMSCH intends to proceed with its plans regardless. “The benefits to the system far outweigh any individual reimbursement we would get,” he says. “There is no need to wait for reimbursement.” ■

SOURCE

- **Richard Brodsky**, MD, Director of Pediatric Telemedicine, Bristol-Myers Squibb Children’s Hospital, New Brunswick, NJ. Email: brodskyri@rwjms.rutgers.edu.

Program Offers Psychological First Aid, Support to Healthcare Workers Following Traumatic Events

New data show approach can deliver financial dividends to hospitals as well as emotional well-being to individuals who use the resource

When an adverse outcome occurs, support rightfully flows to the affected patients and families. However, the clinicians involved with such cases often suffer, too, and the resulting stress and anguish can lead to decreased productivity, time away from work, depression, and other serious mental health effects. In fact, in some cases, the suffering is so great

that physicians and nurses will leave their professions behind.

Albert Wu, MD, MPH, director of the Center for Health Services and Outcomes Research at Johns Hopkins Bloomberg School of Public Health in Baltimore, coined the term “second victim” to describe caregivers who experience negative effects from traumatic events such as unexpected

deaths, poor outcomes, or clinical errors they may have made while caring for a patient. He explains that clinicians involved with such events can experience both short-term and long-term effects.

“In the short term, people can be psychologically traumatized as they are from any great shock. They may be stunned and they can be

grief-stricken,” Wu observes. “They can become very angry, and they may be unable to do the tasks that they would otherwise be doing as healthcare workers. It is really part of an acute stress reaction, which is kind of the way human beings react to great stresses.”

However, in the long term, clinicians can be injured or traumatized further by unsympathetic or critical responses from their peers, well-meaning investigations, lawsuits, or the reactions from patients or family members, which may be understandably harsh, Wu explains. “Some [clinicians] go on to develop what is essentially PTSD. People become depressed, they withdraw, and they may try to avoid any circumstance that would remind them of what happened,” he says. “They may have nightmares or flashbacks. Some turn to alcohol or drugs.”

Recognizing that this “second victim” phenomenon is hardly rare, in 2009 Wu and colleagues spearheaded the development of a peer-support program that is aimed at quickly and confidentially addressing the emotional needs of caregivers whenever they reach out for help. Called the Resilience in Stressful Events (RISE) program, the approach relies on a network of volunteer peer responders who have received training in providing what is called psychological first aid to clinicians who have been involved with a difficult patient care event. This can involve an error that leads to adverse consequences, an unexpected or traumatic patient death, a mass-casualty event, or an in-hospital assault on a member of the care team.

While the impetus of the program was to provide needed care and support to healthcare workers, research has shown the approach delivers

financial dividends as well. A cost-benefit analysis of the program’s effect on the nursing staff of a 1,000-bed hospital between 2015 and 2016 has found that the program saves more than \$22,000 for every nurse who initiates a call to the RISE program, resulting in \$1.81 million in savings each year. Researchers considered the cost of administering the RISE program, nursing turnover, and nursing time off from work.¹

Prioritize Help for Caregivers

Although no single event triggered the development of the RISE program, Wu notes that a 2001 case involving the preventable death of an 18-month-old girl proved pivotal for the institution in terms of recognizing patient safety as a problem. Josie King was receiving treatment for burns at Johns Hopkins Children’s Center following a bathtub accident when a series of medical errors led to cardiac arrest and death. Investigators determined that the cause was severe dehydration, an unthinkable result, given that the little girl was receiving treatment in one of the country’s premier medical institutions.

Wu and colleagues realized that even nine years after this incident, deep-seated wounds from this case persisted. “Some of the nurses and other healthcare providers who had taken care of Josie back in 2001 felt like even though the incident had been handled in exemplary fashion, they had not been treated fairly,” he says. “They felt that they had been thrown under the bus, essentially, and scapegoated.”

Perspectives on this case as well as other cases that have emerged over the years at multiple institutions brought to a head the need for Hopkins to

EXECUTIVE SUMMARY

Clinicians who work in high-stress environments such as the ED or an ICU are vulnerable to negative emotional effects from adverse events or patient deaths, especially when medical errors are involved. A unique peer responder program in the Johns Hopkins Health System helps such individuals cope with these incidents by quickly delivering psychological first aid to healthcare workers who reach out to the program for help. Called the Resilience in Stressful Events (RISE) program, studies show the approach can deliver financial dividends as well as benefits to emotional well-being.

- A founder of the RISE program coined the term “second victim” to describe caregivers who experience negative effects from traumatic events such as unexpected deaths, poor outcomes, or adverse events that result from clinical errors.
- Experts note that clinicians can suffer both short-term and long-term effects from traumatic incidents, sometimes leading to depression or PTSD. Under the weight of such burdens, some clinicians leave their professions or turn to alcohol or drugs to cope.
- In response to distress calls from caregivers, peer responders provide psychological first aid and links to other resources when appropriate.
- Interactions with peer responders are completely confidential, with no reporting to administrators or risk managers.

do something as an institution for caregivers who find themselves in these types of difficult situations, Wu explains. “We were about 10 years into our healthcare patient safety journey at this point, and perhaps this wasn’t the first thing that an organization would do, but having handled some of the low-hanging fruit of patient safety, we were now ready to also take care of some of our own caregivers,” he says.

Gather Feedback From Clinicians

With no roadmap or model to follow, Hopkins had to develop RISE from scratch, explains **Cheryl Connors**, MS, RN, NEA-BC, a patient safety specialist at the Armstrong Institute for Patient Safety and Quality, part of the Johns Hopkins Health System, and the administrator of the RISE program. “We found that there really wasn’t a peer responder training program for healthcare, so we relied on other training from psychological first aid, the Social Resilience Model and the GRACE Model,” she says. “They were all very good, but they weren’t specific for healthcare.”

Consequently, the Hopkins team also considered all the principles that they believed were applicable from their own encounters in the hospital as they began to build a curriculum they could use for a full day of training for peer responders, Connors explains. The reason developers focused on using peers for this work stems from a survey they conducted in which they asked healthcare workers what kind of support they would be most willing to use if a program were to be offered. “We found out that people who encounter really severe experiences really just want a peer to talk to,” Connors relates.

The survey participants indicated that they didn’t want to use an employee assistance-type program because they didn’t think that was what they needed, Connors adds. “They didn’t need counseling,” she says. “They needed and wanted somebody who could understand what they were going through and could relate to the environment that they were working in, somebody who would show up and just be there with them.”

Recruit a Multidisciplinary Team

Currently, the RISE training takes place twice a year, and the program recruits a multidisciplinary group of volunteers from throughout the hospital, including physicians, nurses, social workers, and other healthcare workers. “They get a manual, they get videos, and they get a one-day workshop where we do some didactic [instruction] and then a lot of interactive scenarios so that they can feel comfortable and competent to do this work,” Connors explains.

Still, it is not unusual for new recruits to be nervous about their new role, Connors acknowledges. “I always assure them by saying that if you just show up when the person needs you, you have already done a really big part of the job,” she explains. “The other part is just to listen to them. You are providing a safe space where they can just share with you whatever they want and need. You do some reflective listening, and you empathize with them. And you might help them identify some coping strategies so that they can get through [the situation].”

Connors stresses that that peer responders never tell healthcare workers what to do, but rather help identify what resources work for them, and

encourage them to incorporate those resources into their lives. “When people are feeling some distress, they often forget what those resources are,” she says. “It sounds simple, but in healthcare it goes a long way.”

A peer responder is available to respond to a call of distress from a health worker on a 24/7 basis. Typically, the peer responder will reply within 30 minutes, and then arrange to meet with the caller in a private space, ideally within that same work shift or perhaps at the end of the shift.

The encounters with a peer responder take, on average, 49 minutes, but they can range from 20 minutes to more than an hour, Connors shares. “It depends on the scenario and how many people are receiving support,” she explains.

Although the peer responders are all trained in the same way, every encounter with a healthcare worker is tailored to the circumstances and the setting involved, and what happens during this meeting is entirely confidential. “We do not report to anyone,” Wu observes. “We are not in contact with risk [management], with the patient safety team, with investigators, with managers, or anyone else.”

The goal is to help make the healthcare worker feel better, Wu explains. “We try to help them to some extent reframe the incident, to understand the context better, and to provide both emotional support and some informational support,” he says.

However, if additional resources are required, the peer responders will conduct some triage as appropriate, Wu notes. “If someone is acutely or persistently in distress, we have standard operating procedures for referring someone on to a higher level of care or continued care,” he says. “We have routines, and we collect a

very minimal amount of information for the purposes of debriefing with one another and doing a lot of evaluation for how we are doing.” To that end, on occasion, the peer responders will meet as a group to discuss their experiences, engage in booster training sessions, and catch up on what is going on with the program, Wu explains.

Take Note of High-stress Environments

Not surprisingly, the peer responder program is no stranger to the emergency setting. “Over the last two years, [the ED] has used us even more than they have in the past due to the nature of events that were taking place in that area,” she says. “People come through the door with a lot of drama.”

Emergency personnel see everything from gunshot wounds to children involved in abuse, and such cases can be particularly challenging and stressful, Connors notes. “Pediatrics is big, and sometimes [the difficult cases] come in waves where there will be five in a week, and that can be just too much [distress] for the staff to handle,” she says. “We have also had quite a few aggressive patients and families that have come through [the ED]. I would say that is the trend we see a lot of in the emergency area.”

In fact, Connors observes that the peer responders often conduct group sessions with ED personnel when there are times of really high stress over several days. “We may make an effort to go down [to the department] and round, and actually have peer responders tell people who they are, and just ask how they are doing,” she says. “We have a lot of individuals who open up right there on the spot.” Wu agrees that while calls of distress

can come from every department in the hospital, there are a few places where there is more stress, uncertainty, bad outcomes, contentious interactions, and burnout. In addition to the ED, these include ICUs and pediatric oncology. “We get quite a lot of calls related to clinical incidents, and occasionally we get calls related to altercations,” he explains. “Health-care workers have been assaulted by patients or bystanders, and all of these things are very disturbing when you are under a lot of stress and trying to do a good job.”

Guard Confidentiality

Given the tight confidentiality of the peer responder interactions, it is difficult to collect follow-up data or produce hard numbers on the program’s effect beyond the documented cost savings. However, administrators do have anecdotes they have permission to share. For instance, Connors recalls the case of an experienced critical care nurse who was responsible for double-checking to make sure an infusion was operating as ordered by the physician. She thought she had checked the infusion thoroughly, but the patient deteriorated, resulting in complications and a longer length of stay.

“The investigation found that the infusion was actually running way faster than it was supposed to,” Connors relates. “The nurse looked back at her calculations and she missed something, and so she was absolutely devastated and considered quitting.”

This was a highly experienced nurse who was very good at her job, Connors notes, but she relayed to the peer responder that she no longer thought she was good enough and didn’t want to go home feeling responsible for someone else’s life.

“However, by the end of the encounter, the nurse actually seemed a bit hopeful, and she was going to take a couple days off of work,” Connors recalls.

Seven months after the incident, the nurse’s manager called RISE, and indicated that the nurse was performing at a higher level in her job than she ever had before, and actually was using the infusion incident she was involved with in teaching simulations to prevent this error from ever happening again, Connors explains. “I never heard from the nurse, but I heard from the manager, and it was very powerful,” she says.

In another case, a nurse who was still suffering from the effect of a clinical incident that had occurred several years earlier, reached out to RISE. “I thought after 10 years this is probably not going to help a whole lot,” Connors notes. However, the nurse called back a couple of months later to report what a difference the encounter with the peer responder made. “She said that she felt like a 10,000-pound weight had been lifted from her heart,” Connors recalls.

In addition to the positive anecdotal feedback, there is clear evidence that clinicians use the resource. Program administrators report that calls into the RISE program have increased steadily since the program was first tested in 2011.

Get Institutional Buy-in

While there are costs associated with operating the RISE program, the benefits include improved healthcare worker well-being as well as a positive effect on patient safety, Wu explains. “Every time there is an incident, it represents a very stressful time for healthcare workers and a time of heightened risk that someone

may either not function so well and perhaps even commit another error, or more likely that they will take some extra time off or even leave their units or the institution,” he says. “The cost of replacing a nurse is substantial, and the cost of replacing a doctor is even more.”

Wu emphasizes that although incidents involving medical errors can be terribly upsetting to the health-care workers involved, other types of events can be similarly stressful. “There are many, many ways to be saddened or shocked by things that happen in the hospital, and our mission is to provide timely support to any healthcare worker, not just doctors and nurses, who encounters a stressful patient-related event, which could be an error, but in a large majority of cases is not,” he says.

Wu adds that program administrators see RISE as increasingly relevant to the mission of the institution. “You have to have healthy healthcare workers,” he says. “We feel as though we are doing that.”

How might other hospitals interested in caring for their health-care workers move to establish a peer responder program? One of the essential first steps is making sure to get hospital leadership on board, Wu notes. “These incidents and RISE or RISE-like teams are involved in very sensitive issues — sometimes medical errors, some patient injuries and patient deaths, or issues related to human resource or personnel matters,” he explains. “All of those things are things that top managers at institutions care about ... so the first step is to really get buy-in from the institution.”

Interested administrators can find literature and training on peer responder programs, some of which is available through the website for the Armstrong Institute for Patient Safety

and Quality (<http://bit.ly/2uNoEdJ>). “Once we were successful, we developed with the Maryland Patient Safety Center a curriculum and training program to help spread this [approach] — exactly what we do — to other hospitals,” Wu explains. “This is to help them short-cut the process to develop a program on their own.”

Thus far, the Armstrong Institute has helped two other hospitals in Maryland implement peer responder programs, including one academic medical center and a community hospital, according to Connors. “It was very successful in both settings. I would say this is 100% transferable,” she says. “Starting from scratch is hard, and there is a lot that we have learned that we can now share with others.” ■

REFERENCE

1. Moran D, Wu AW, Connors C, et al. Cost-benefit analysis of a support program for nursing staff. *J Patient Saf* 2017 Apr 27. doi: 10.1097/PTS.0000000000000376. [Epub ahead of print].

SOURCES

- **Cheryl Connors**, MS, RN, NEA-BC, Patient Safety Specialist, Armstrong Institute for Patient Safety and Quality, Johns Hopkins Health System; Administrator, Resilience in Stressful Events (RISE) Program, Baltimore. Email: ccicio1@jhmi.edu.
- **Albert Wu**, MD, MPH, Director, Center for Health Services and Outcomes Research, Johns Hopkins Bloomberg School of Public Health, Baltimore. Email: awu@jhu.edu.

CME/CE OBJECTIVES

After completing this activity, participants will be able to:

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

COMING IN FUTURE MONTHS

- A roadmap toward effective handoffs
- Effectively curbing *C. diff.* infections
- Improving care of emergency patients with acute kidney injury
- Reducing unnecessary CT scans

live & on-demand

WEBINARS

- ✓ Instructor-led Webinars
- ✓ Live & On-Demand
- ✓ New Topics Added Weekly

CONTACT US TO LEARN MORE!

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



ED MANAGEMENT®

PHYSICIAN EDITOR

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

NURSE PLANNER

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

EDITORIAL ADVISORY BOARD

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

Kay Ball, PhD, RN, CNOR, FAAN
Professor of 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

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 Karpziel, MPA, FACHE, FHFMA
Emergency Services Consultant
Karpziel 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
Professor of Emergency Medicine
Professor of Pediatrics
Department of Emergency Medicine
Augusta University, Augusta, GA

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@AHCMedia.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@AHCMedia.com or (866) 213-0844.

To reproduce any part of AHC 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 **AHCMedia.com** and click on [My Account](#). First-time users must register on the site using the eight-digit subscriber number printed on their mailing label, invoice, or renewal notice.
3. Pass the online tests with a score of 100%; you will be allowed to answer the questions as many times as needed to achieve a score of 100%.
4. After successfully completing the test, a credit letter will be emailed to you instantly.
5. Twice yearly after the test, your browser will be directed to an activity evaluation form, which must be completed to receive your credit letter.

CME/CE QUESTIONS

1. **Developers note that the main benefit from a tele-emergency network operating in multiple states in the Great Plains is:**
 - a. improved patient care.
 - b. cost savings.
 - c. efficiency gains.
 - d. avoided patient transfers.
2. **Clinton MacKinney, MD, MS, an emergency physician practicing in Little Falls, MN, and deputy director of the Rural Telehealth Research Center in the Department of Health Management and Policy at the University of Iowa in Iowa City, IA, explains that the most common calls to the emergency telemedicine network involve heart attacks, strokes, multiple trauma, and:**
 - a. migraine.
 - b. abdominal pain.
 - c. kidney stones.
 - d. behavioral health concerns.
3. **Mandy Bell, MHA, eCARE quality and innovation officer at Avera eCARE in Sioux Falls, SD, explains that the emergency medicine physicians providing the telemedicine consultations from the network's hub in Sioux City receive added training on:**
 - a. the healthcare culture in rural communities.
 - b. how to work effectively with remote practitioners.
 - c. information technology solutions.
 - d. None of the above
4. **The term "second victim," coined by Albert Wu, MPH, at Johns Hopkins Bloomberg School of Public Health in Baltimore, refers to:**
 - a. parents who are caring for a sick child.
 - b. a patient whose injuries are overlooked because of the severity of another patient's condition.
 - c. caregivers who experience negative effects from traumatic events.
 - d. None of the above