Cover Stories

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A Rising Star

Thinking about launching a community paramedicine program? MedStar shows how to do it right.

By Jenifer Goodwin

Editor's note: Community paramedicine has the potential to revolutionize EMS. In our last issue, we reviewed three grants that have been awarded by the Centers for Medicare & Medicaid to test the concept. This month we examine the progress and lessons learned from one of the pioneers in this area, MedStar in Fort Worth, Texas.

This spring, the Centers for Medicare & Medicaid (CMS) Innovation Center announced more than $13 million in grants to launch community paramedicine programs in Pagosa Springs, Colo.; Prosser, Wash.; and Reno/Sparks, Nev. The grants went to relative newcomers to community paramedicine, as none had established community paramedicine programs. Nonetheless, the grants are being heralded as a sign that community paramedicine, after so many years of being hampered by a lack of funding, is finally coming into its own.

But years before the federal government put its resources behind the concept, a few EMS organizations had quietly built community paramedicine programs. They include Western Eagle County Ambulance District in Colorado, which received state and private foundation grants to create a rural community paramedicine model, and Wake County EMS in North Carolina, which covers the cost of paramedics who do home visits for frequent users of 911 and patients with chronic diseases through its existing budget.

Each EMS agency is worthy of recognition for its efforts in positioning EMS as part of the solution in tamping down health care costs while maintaining, and even improving, patient care. But perhaps furthest along in the creation of a community paramedicine program that's sustainable over the long term is MedStar EMS, a third service that answers 110,000 911 calls annually in Fort Worth, Texas, and 14 surrounding communities.

MedStar's staff of eight advanced practice paramedics (APPs) offer in-home and telephone support for specific groups of patients, including frequent 911 users, patients with congestive heart failure and patients recently discharged from the hospital who are at high risk of being readmitted.

Available 24/7, services provided include follow-up visits with recently discharged patients, assistance with navigating the health care system and, for CHF patients, a unique protocol in which APPs visit the patients at home, consult with their cardiologists to change medications as needed, and then arrange for them to be seen by a doctor within 24 hours.

Most promising of all: MedStar has negotiated agreements with the hospitals, hospices and large doctors' groups that it works with to enable its APPs to bill for home visits and other services on either a per-encounter or per-patient basis.

"We are the first EMS agency to do community paramedicine that is actually getting paid to keep patients out of the hospital," says Matt Zavadsky, MedStar's public affairs director, who helped spearhead the program. "Our goal is to have this program take off so that it becomes a significant part of our revenue."

Getting started: frequent users

MedStar launched its Community Health Program in July 2009 with a specific goal: to do something about frequent users. In 2009, MedStar found that 21 patients were transported to local EDs a total of 800 times over a 12-month period, generating more than $950,000 in ambulance charges. Most did not have health insurance, leaving MedStar stuck with the bill.

"We took a paramedic on light duty and sent him out to the homes to see what was going on with these individuals," says Sean Burton, MedStar's clinical programs manager. "We found a few basic things, including lack of education on how to navigate the health care system. They did not know how to obtain Medicare or Medicaid, or other services they were eligible for. So we would help them with that, which would lead into getting them a primary care physician and the prescriptions they needed."

The program was a success. Today, the CAD notifies MedStar's APPs about anyone who has called 911 more than 15 times in a 90-day period. The APPs then call on these patients at home and, if they're willing, will conduct an in-depth assessment, connect them with services they're eligible for and educate them about taking care of chronic conditions at home. The APPs continue visiting the patients as often as needed—sometimes, multiple times a week—until they "graduate" and are no longer a frequent user, Burton says.

Compared with the year prior to enrollment, patients in the frequent user program went to the ED 79 percent less often. "Once we found we could be successful with the frequent users, we spread our wings," Burton says.

Expanding its community health program
The next target: CHF patients. Statistics show that patients with CHF are among the costliest to the health care system, and MedStar's APPs thought they could make a difference with them, too. One issue, however, was how to identify those patients and what types of interventions APPs could do. That's where MedStar's partnerships came into play, Zavadsky says.

A critical element of any community paramedicine program is the support of other health care community stakeholders, including hospitals, doctors, and public health and social services agencies. In developing the frequent user program, MedStar worked with its medical director, Jeff Beeson, M.D.; the Medical Control Authority; and the Emergency Physicians Advisory Board. When the frequent user program started reporting positive results, physicians involved with those groups started talking up MedStar's initiative to their colleagues at hospitals and physician specialty groups, Zavadsky says.

"Because of the awareness that hospitals' emergency physicians had, we started being invited to participate in readmission reduction programs," Zavadsky says. "When you're at the table, you can become a bigger part of the solution."

Those discussions also led to the formation of a Care Coordination Council, made up of case managers at hospitals in the region who meet monthly to discuss patients who might be helped by APPs.

Frequent users often don't visit one hospital, Zavadsky says. "These patients hospital shop. They go to multiple destinations. We all own this problem, so the question was, 'How do we bring in all of the potential places they are going to go to, and how do we coordinate care, so that case managers can talk to each other and determine how to navigate a patient to more appropriate care?"
Initially, MedStar and its partners were concerned about running afoul of HIPAA laws. After consulting with legal experts, they determined that if MedStar had contact with the patient, it could serve as the "hub" in coordinating patient care. As the hub, MedStar could facilitate discussions between various providers and still comply with HIPAA. "We become the conduit, facilitating patient care coordination," Zavadsky says.

In the case of CHF patients, Burton and the MedStar Community Health Program staff reached out to case managers to identify patients at high risk of hospital readmission. APPs then visit those patients at home, teach them to spot symptoms early on so that they can see their primary care physician instead of going to the ED, and educate them on managing their condition through limiting sodium and other lifestyle changes. Patients are also given a non-emergency number where they can reach APPs.

Though patients reported being happy with the program and there was about a 50 percent decrease in the number of ED visits for the first 54 "graduates," APPs still felt limited in what they could accomplish. For instance, if an APP did a home visit and the patient had significant symptoms, the APP had little choice but to transport to the ED.

So, with the help of Farhan Ali, M.D., a local cardiologist; Beeson; and MedStar's associate medical director, Steve Davis, M.D., they developed a unique in-home diuresis protocol launched in June.

When APPs visit the home, they check vital signs, run an ECG and do lab tests on site to measure potassium and kidney function. If the symptoms are serious, APPs will contact the cardiologist, who may tell them to change or increase the patient's medication. Three to four hours later, APPs return to the home to follow up with the patient and make sure he is scheduled for a visit with a cardiologist within 24 hours. If the patient can't get himself to the appointment, MedStar can provide bus passes or taxi vouchers.
For CHF patients to be eligible, they must have a cardiologist who is willing to consult with APPs by phone, after hours and on weekends. So far, seven patients have been enrolled under the new criteria, and none have gone to the ED. "One criterion for enrolling is that patients have a cardiologist who has a good relationship with my paramedics," Burton says. "Without that relationship, we're not going to diurese someone at home without knowing we are going to have a follow up-appointment within 24 hours."

All patients enrolled in the CHF program are flagged in the CAD system, so that APPs are notified as soon as one calls 911, Burton adds.

Building on success
After the success of the frequent user and the CHF programs, hospitals and physicians in the Fort Worth area became increasingly interested in what APPs had to offer—as did others. The Agency for Healthcare Research and Quality profiled MedStar's program, and local media provided positive coverage, Zavadsky says. Even the federal government took notice, inviting MedStar to apply for an Innovation Grant. (It did not receive one.)

Yet the Community Health Program is expanding rapidly even without the grants, Burton says. And it's crossed a significant hurdle in enabling that to happen: getting paid for the work.

Recently, MedStar negotiated an agreement with North Texas Specialty Physicians, a large physicians' group and accountable care organization, for a pilot program to reduce readmissions for "observation admittance" patients—that is, people who were deemed in the ED to be healthy enough to go home, but who physicians weren't comfortable discharging because of concerns that the patient might have difficulty caring for himself and a lack of social support, Burton says. Through the pilot program, APPs will visit patients at home a few hours after discharge, go over discharge instructions and make sure the patient is able to follow them, and contact the MedStar nurse, who will make sure patients get in to see a doctor for a follow-up appointment quickly.

MedStar's APPs are also contracted with a hospice organization to respond to hospice patients who call 911. When a patient who is receiving hospice care at home goes to an ED, the hospice benefit can be revoked—something hospice wants to avoid.

Under the agreement with MedStar, hospice patients are flagged in the CAD. When 911 gets a call regarding a hospice patient, APPs go to the home and notify a hospice nurse. APPs typically can get to the patient faster than the nurse and are trained to offer counseling and comfort to the patient and their family until the nurse arrives.

"People usually call 911 for a hospice patient in a moment of panic," Davis says. "Advanced practice paramedics can provide that counseling and that comfort to help deal with a dying patient at home."

Along with training on dealing with grief and hospice patients, APPs receive an additional 186 hours of classroom training from experts in various disciplines to handle psych emergencies, homeless patients, chronic illnesses and other topics. Medics also receive 80 hours of clinical training, which includes working shifts in hospital ICUs and cath labs.

"The selection of the team is very important," Burton says. "It has to consist of paramedics who are experienced and have reached a point in their career that they know this patient needs more than a ride to the hospital, which is just sending them right back home. We want that medic who says, 'There has got to be more that we can do.'"

The training may expand even more, Burton says, as the role of APPs in the community grows. Recently, JPS Health System, a large public hospital that serves a high number of Medicaid patients, approached MedStar to be part of its proposal to CMS. Under a program called a 1115 waiver, the hospital may be eligible for additional Medicaid money for more effectively treating that patient population. For APPs, that may include home visits and coordinating care for patients with other chronic diseases, such as diabetes, COPD and the elderly at risk of falls, and making daily visits to homeless shelters to make sure people are taking medications properly.

Investing in community paramedicine

None of this, however, has come cheaply. Over the three years since it launched its community paramedicine program, it's cost MedStar about $1.5 million, the majority of which has gone to paying the salaries of APPs, says David Hooten, MedStar's CEO. (To cover the costs, MedStar began offering critical care transport and had its APPs handle both duties.)

Hooten recommends that EMS agencies that want to launch their own programs start pilot programs that reach a small number of patients, 10 patients or so who are at highest risk or who are costing the system the most, so you can collect data on savings and then take your results to stakeholders when you're ready to expand.

"Many of the programs were in essence a proof of concept," Zavadsky says. "We've been able to prove the concept through relationship building, and now we're getting to the point where our partners are saying, 'This is worth an investment up front to help patients get better and save money downstream.'"

Jenifer Goodwin is Best Practices' associate editor.