

# Developing a Cancer Care and Community Paramedicine Partnership





## In Brief

The Presbyterian Healthcare Services Cancer Care program and Albuquerque Ambulance Service partnered together beginning in 2019 to develop a unique service, offering patients with cancer certain clinical interventions and wellness checks to be received at home provided by the Albuquerque Ambulance Service Mobile Integrated Health team. The goal of the initiative has been to reduce utilization of the emergency department (ED) for symptoms that could be appropriately managed in a lower level of care—in this case, patients’ homes—as well as reduce patients’ exposure to other infectious diseases while at the ED. The initiative has had the added benefit of reducing in-office visits throughout the COVID-19 pandemic for patients requiring lower acuity care. Though it is early to report on detailed findings, preliminary results suggest excellent clinical outcomes, improved patient satisfaction, and significant cost savings to both the clinical delivery system and payers.

**A**ccording to a recent publication by the American Association for Cancer Research, overall national costs for cancer care in 2015 were \$183 billion and are projected to increase 34 percent to \$246 billion by 2030, based only on population growth.<sup>1</sup> As the cost to provide cancer care continues to skyrocket globally, there is increasing pressure to move care from hospitals and clinics into lower-cost settings.

In 2016, the Center for Medicare and Medicaid Innovation (the Innovation Center) launched the Oncology Care Model (OCM), with the primary objective stated as: “The Innovation Center is pursuing the opportunity to further its goals of improved quality of care at the same or lower cost through an oncology payment model.”<sup>2</sup> The OCM focused its efforts on “practice transformation,” which included specific metrics to reduce ED utilization and inpatient level of care. Although Presbyterian Healthcare Services did not participate in the OCM, leaders did take notice and began to explore methods to reduce costs of care.

One of these initiatives is the development of the Cancer Care and Mobile Integrated Health partnership.

### About Presbyterian Healthcare Services

Presbyterian Healthcare Services is a fully integrated healthcare system that incorporates inpatient, outpatient, and community-based clinical delivery services and a commercial health insurance plan. Because of the relationships created through this integrated network, the Albuquerque Ambulance Service’s Mobile Integrated Health team can offer services aimed at providing outstanding clinical care in a model designed to prevent hospitalizations. This service model can also decrease the costs of care passed along to the health system’s health plan, whose members include a majority of the covered lives in the Albuquerque metropolitan area.

The Cancer Care program has been in place since 2007. All treatment modalities are offered, including surgical, medical, and radiation oncology, and all supportive care modalities. Services

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are offered at two primary locations: Jorgensen Cancer Center at Presbyterian Rust Medical Center and Presbyterian Kaseman Hospital. Surgical cases are also done at Presbyterian Hospital, which has the most developed intensive care capability. Presbyterian Healthcare Services has robust palliative, hospice, and hospital at-home programs. In 2020, approximately 2,400 patients were diagnosed with cancer in the healthcare system. Accreditations held include the Commission on Cancer, National Accreditation Program for Breast Centers, American College of Radiology's Radiation Oncology Practice Accreditation, and Quality Oncology Practice Initiative certification. Presbyterian Healthcare Services is a member of the MD Anderson Cancer Network and is seeking accreditation by National Accreditation Program for Rectal Cancer in 2022.

### **Getting Started**

Early in 2018, various leaders within Presbyterian Healthcare Services met to discuss strategies for various service lines. In this session, several quality improvement initiatives for the Cancer Care program were discussed and are outlined below:

- Reduce ED utilization
- Reduce low-acuity hospital admissions
- Reduce risk of hospital-acquired infections by eliminating unnecessary exposure in this care setting
- Improve patient satisfaction, specifically by delivering care in the venue most convenient for patients to reduce the frequency and cost of transportation and to have continuity with clinical providers
- Reduce overall costs of care.

These became the framework for the Cancer Care and Mobile Integrated Health partnership.

The Mobile Integrated Health team's primary objective is to ensure that patients are safe in their homes. Wellness checks are part of every visit to the home and were believed to be of value to the oncology patient population. Other low-risk clinical interventions determined appropriate for the Mobile Integrated Health team are those delivered routinely and frequently along the cancer journey. These include hydration, magnesium and other electrolytes, lab draws, antiemetics, and pain medications.

At the start of the partnership, leadership from Cancer Care and Mobile Integrated Health developed a five-item initiation checklist to drive program development and implementation:

1. Determine organizational readiness
2. Assess clinical scope of practice for paramedics
3. Collect data on eligible patients
4. Receive payer endorsement and reimbursement plan
5. Design cross-training education and a competency program.

### **Organizational Readiness**

Cancer Care and Mobile Integrated Health leadership were pivotal in gaining organizational support for this service offering. With their clarity and direction, a large group of clinical leaders on both teams became the steering committee who shared and expanded the vision. These included several medical oncologists, surgical oncologists, and radiation oncologists; the Mobile Integrated Health medical director; nursing leaders; nursing educators; Mobile Integrated Health leaders and educators; data and analytics partners; and, most important, a senior quality consultant who ensured that the team stayed on task throughout implementation and documented various measures of success.

With broad participation by this steering committee, engagement of the entire clinical team became less of a challenge. It is difficult to convince an oncologist or a nurse—who is used to seeing this subset of patients frequently—that the standard of care will not be compromised. Through a detailed orientation, competency plan, and various opportunities for social interaction, these fears were minimized.

Presbyterian Healthcare Services' senior leadership had to also understand the cost and benefit for this service offering. Most organizations are experiencing an interesting marketplace dynamic, where they seek to maximize revenue wherever possible, yet they also want to reduce costs of care. Recognizing this dichotomy, the team focused on offering the service to a cohort of patients with Presbyterian insurance, many of whom are covered by Medicare Advantage and Medicaid plans. With support and endorsement from the health plan, senior leaders understood the financial benefits as well as the exceptional patient and team satisfaction the program would bring.

To gain the trust of the clinical team, the steering committee determined that a pilot was necessary. Three patients participated in the pilot and received hydration provided by the Mobile Integrated Health team. Patients raved about the service and, as the team providing the care became comfortable, the steering committee gave the green light to expand.

### **Assess Clinical Scope of Practice for Paramedics**

Paramedics or emergency medical technicians (EMTs) are traditionally trained to deal with acute medical emergencies. When these professionals arrive on scene, they take charge, quickly develop a plan of care, implement and execute that plan, and then move on to the next patient. This is in contrast to the world of mobile integrated health, in which clinical practice is more akin to nursing than to traditional paramedicine. However, because the Albuquerque Ambulance Service's Mobile Integrated

Health EMTs are among the senior-most staff, their ability to adapt to a different modality of care was quickly demonstrated. In addition, the Mobile Integrated Health team easily understood the value that their expertise offered the healthcare system and patients. Therefore, the staff's support for the program and their comfort level performing the required skills was high.

Although confidence was high, it remained important to ensure that the Mobile Integrated Health EMTs were more than technicians following a set of orders. Operational leaders from the Mobile Integrated Health team collaborated with oncology subject-matter experts and nurse educators to conduct a competency gap analysis to answer two fundamental questions:

1. What aspects of oncology care in the home are critical to quality but are not yet part of the Mobile Integrated Health EMTs' training, knowledge, or skillset?
2. How do we design the training required to ensure competency?

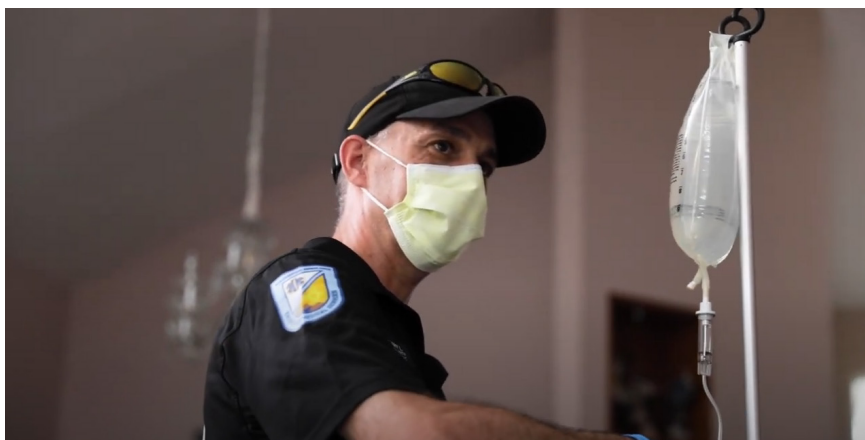
In completing the training and competency plan, it quickly became evident that the scope of practice currently approved by the New Mexico Department of Health did not include several key aspects of the treatment plan. In developing new protocols, or expanding existing ones, the relationship between program leadership and regulators at the state's lead agency that is providing oversight for emergency medical service practice (New Mexico Department of Health's Emergency Medical Systems Bureau in this case) was key to achieving the goals without substantial regulatory hurdles. Albuquerque Ambulance Service's track record in these areas has been strong for many years, so the approval process was quick.

### Data Collection

A key element to achieving our desired goals included engaging Presbyterian Health System's data and analytics team at the initiation of the project. The team helped us define the target demographic, number of eligible patients, and anticipated patient volume for the appropriate care plans. Once the health plan defined the geographic coverage for services offered by the Mobile Integrated Health team, the data and analytics team



Paramedics sit with patients and provide education on their at-home treatment(s) and health.



A paramedic prepares intravenous fluids for a patient.



A paramedic arrives at a patient's home to provide care.



Patients can receive their care in the comfort of their homes and with their caregivers present.



A patient's vitals are checked.



Paramedics build close relationships with the patients they visit.

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assisted in determining the number of patients who were located in the counties where services are offered. The operational plan was created with these data elements in mind.

### **Payer Endorsement and a Reimbursement Plan**

As an integrated healthcare system, Presbyterian Healthcare Services owns and operates the Presbyterian Health Plan, which insures approximately 40 percent of the people living in New Mexico. The Presbyterian Health Plan works with both employed and other community providers to individualize patient care while optimizing outcomes, improving patient satisfaction, and managing costs. Population health works closely with the Presbyterian Health Plan to ensure goals are achieved. Oncology and Mobile Integrated Health leaders vetted the service offerings with this team. From there, the operational leaders, population health leaders, and Presbyterian Health Plan leaders collaborated to provide services to patients. Reimbursement rates were determined with the goal of covering costs, and a contract between Mobile Integrated Health and Presbyterian Health Plan was created.

### **Training and Competency Plan**

Steering committee participants understood the need to build confidence between the two teams (Cancer Care and Mobile Integrated Health) to provide a seamless experience to patients. To that end, a social hour was held at each cancer center, where the teams met and mingled.

From there, nursing education and clinical leadership developed a detailed training plan: a didactic curriculum that included an overview of common diagnoses, complications, and care pathways. Each EMT underwent an intensive training plan (for multiple days and weeks) on-site within infusion center(s) to gain experience in accessing ports and delivery of various oncology treatment modalities. Training for the Cancer Care team included didactic sessions about EMT licensure and scope of practice.

When the pilot was conducted, an expert and certified oncology nurse went with the EMT on each clinical visit to oversee care and provide support. This was key in developing the partnership between the EMTs, oncology care providers, and patients.

### **Early Lessons**

Though the concept and practice of home visits was not new to the Mobile Integrated Health team, we learned several lessons early that are worth considering by any oncology program or practice

looking to launch a similar quality improvement initiative:

- **Don't drive an ambulance.** This was a lesson learned prior to the Cancer Care and Mobile Integrated Health partnership that is worth mentioning here. At Albuquerque Ambulance Service, Mobile Integrated Health Team members use SUVs rather than ambulances when making home visits. This avoids the natural curiosity factor created when neighbors see an ambulance parked in a driveway for extended periods of time. It maintains a calmness for the patients and their families as well. Keep the ambulances in service for those patients who truly need emergency transportation and use a more subdued vehicle for a program like this.
- **Bring a sterile field.** The clinic environment is quite controlled and incredibly clean compared to what one might find in patients' homes. This is not judgment—just a fact. In the more traditional Mobile Integrated Health home visits to conduct medication reconciliation, diabetes management, or other less invasive treatments, this is not a significant factor—although significant health hazards may be reported through care coordination to address other social determinants of health. However, with the more invasive nature of oncology-specific treatments combined with the immune-suppressed status of patients with cancer, a clean field is important. Laying out medical supplies on the patient's table is not adequate. That said, the solution does not have to be complicated. In brainstorming this problem, staff identified that a simple, non-porous aluminum foldable camping table was a perfect solution. It is light and portable, and it is easily cleaned between patient encounters.
- **Pets are people, too.** Pets are part of the family and, therefore, part of the care team. In many cases, EMTs attempt to remove a pet from the immediate area while treating an emergency patient. Yet Mobile Integrated Health providers are in the home for extended periods of time, and patients may want their pets right by their side for comfort and companionship during the episode of care. In addition, pets may require some attention while providers are focused on patients.
- **Plan for resiliency.** Most EMTs see their patients for short bursts of time in the ambulance on the way to the hospital. As a result, there is not often a personal bond between provider and patient. EMTs become accustomed to dealing with these types of situations, as well as the cumulative stress that comes along with this type of work. The Cancer Care and Mobile Integrated Health partnership exposed EMTs to a much different environment. EMTs spend a great deal of time at each visit and make many visits over time. The relationship that is created with patients as a result is much different, as is the emotional stress that comes along with this type of care. EMTs become part of the family. Therefore, it is important to acknowledge that caregivers experience a different type of stress and fatigue, as well as the sorrow that comes along with patients whose outcomes are not as positive as we would all hope. A plan for resiliency is critical. Mobile Integrated Health is aligned with a full-time social worker, peer support team, and employee assistance group. Each of these components of

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Albuquerque Ambulance Service's employee wellness plan is available at no cost to its team members and can assist them in developing coping skills to maintain good mental health and resilience.

### **Additional Developments**

There was no knowledge of the impending COVID-19 pandemic when this care model was developed. In March 2020, the Mobile Integrated Health service became critical to reducing the number of patients in the clinics and reducing exposure to those patients who are immuno-compromised. The Mobile Integrated Health team began to test for COVID-19 in the home and provided vaccinations. With the delay in cancer screening experienced at this facility and throughout the country, newly diagnosed patients, including those with advanced disease, caused unprecedented clinic volumes, making Mobile Integrated Health services necessary and critical.

Treatment options expanded to include common injections, such as darbepoetin alfa, filgrastim-sndz, pegfilgrastim, and pegfilgrastim-jmdb. The addition of these drugs allowed for further decongestion in the clinics and supported delivery of care in a low-cost setting.

As those intimately familiar with cancer care understand, costs are high at the time of diagnosis and are often high again at end of life. With this framework in mind, cost reduction improves over time based on comfort with this care methodology and increased program scope.

### **Measures of Success**

At the time of writing this article, a total of 168 patients were enrolled in our program during the calendar years 2020 through 2021. We followed 98 patients who were enrolled in the Mobile Integrated Health Oncology program in 2020 and who continued into 2021. With the implementation and expansion of the Mobile Integrated Health Oncology program over that period, we found several key benefits to patients and the health system, including:

1. When looking at comparable time periods in 2020 and 2021, we found that there was a 66 percent reduction in utilization of ED, inpatient, observation, and urgent care visits (203 in 2020 compared to 67 in 2021). As initially hypothesized, the Mobile Integrated Health home visit was able to largely address the issues of electrolyte management, dehydration, nausea, and pain management in the home without having to refer patients to clinic-based care.

2. The reduction in clinic visits combined with the overall lower costs associated with paramedic care in the home translated to a 46 percent reduction in costs of providing care in 2021 (vs. 2020). We hope to follow up these findings with a more detailed and vetted financial analysis, but our initial review reveals an annualized savings to the system of more than \$1.1 million.

In addition to the clinical and financial outcomes, the improvement in patient satisfaction and clinical team engagement cannot be overstated. We know that patients prefer to be treated at home and that the providers caring for those patients found great reward in developing and expanding this innovative care model. The personal relationships that impacted care delivery became an integral part the program's success. There is no better way to summarize this than through direct feedback from our patients and staff.

### **Patient Satisfaction**

*“Every day, when the paramedics come to me at my house, is a gift that I cannot begin to explain. It’s only my life that we’re talking about here.”*

- Marilyn Kirkpatrick

### **Team Engagement**

*“While participating in the training of our community EMTs, it was rewarding to witness the instant connection they were building with our oncology patients. This goes to show you that this small group of dedicated individuals are unique in their talents, and they know the importance of delivering compassionate, patient-centered care.”*

- Angie Purvis, RN

*“Being part of a specialized team of paramedics that get to work so closely with a group like Presbyterian Oncology has been an experience like no other. Being able to extend the oncology clinic*


*to the patient’s home has been one of the most rewarding and fulfilling clinical jobs I have had as an EMT. It has been a privilege to be entrusted with providing care to these patients and being a part of their oncology team.”*

- Sarah Benbow, EMT-P

*The connection that the community EMTs have with our patients is heartwarming. They provide care as if they were caring for their own family. Our patients have become attached to them. I know their connection and personal attention has not only improved their quality of life but has kept them from going to the hospital.”*

- Chantel Tarin, RN

### **Future Directions**

This service offering has enabled the Cancer Care and Mobile Integrated Health teams to achieve the stated goals of reduced ED utilization and unnecessary hospitalizations. Patient satisfaction with the service is outstanding, and the costs of care for patients utilizing the service were reduced. As additional data are tracked and trended to support the program, other health plans will be approached to add this service with the goal of meeting a need in the broader oncology patient community. 

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