

Ambulance Contract Performance Report

May 20, 2021
Submitted July 6, 2021



AMBULANCE CONTRACT PERFORMANCE REPORT

CONTRACT YEAR ENDING MAY 20, 2021

A franchise agreement between the City of Sioux Falls and Paramedics Plus (now PatientCare EMS) for ambulance service within the city went into effect on May 21, 2015. This agreement was extended for a six-year term by City Ordinance approved on December 11, 2018. The agreement term now runs through May 20, 2026.

PatientCare EMS has embraced change and risen to each challenge. Contract compliance is solid and the EMS system is sound.

—Gary Myers, REMSA Chair

That agreement requires an annual report from REMSA to the City Council detailing performance in these areas:

- **Response Time Performance**
- **Clinical Performance**
- **System Improvements**
- **Workforce Stability**
- **Pricing Compliance**
- **Reporting Compliance**



Response Time Performance

Response time performance is the result of a coordinated effort of the Contractor’s total operation.

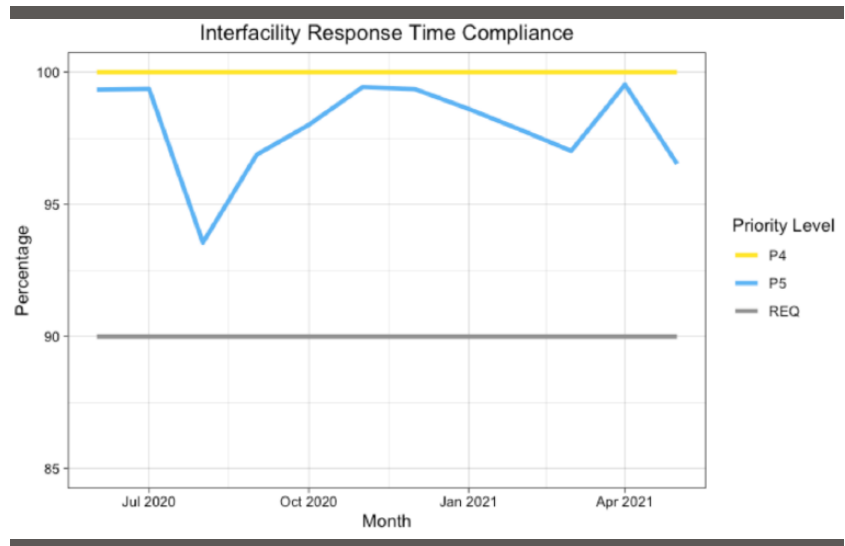
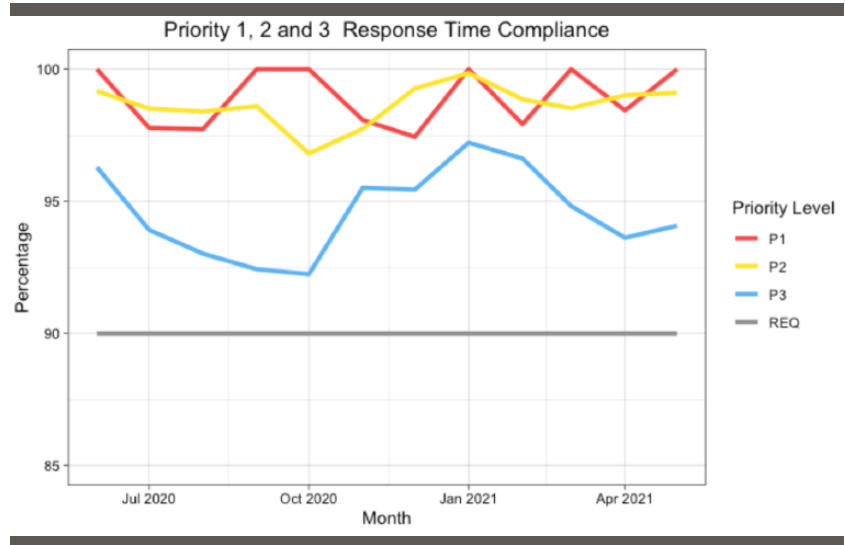
Response time requirements:

- Emergency calls:
 - **Priority 1** (Life-threatening emergencies) require a paramedic ambulance on the scene within 8 minutes, 59 seconds, on not less than 90 percent of all Priority 1 response requests.
 - **Priority 2** (Non-life-threatening emergencies) require a paramedic ambulance on the scene within 11 minutes, 59 seconds, on not less than 90 percent of all Priority 2 response requests.
 - **Priority 3** (Nonemergency ambulance requests) require a paramedic ambulance on the scene within 15 minutes, 59 seconds, on not less than 90 percent of all Priority 3 response requests.

- Interfacility Transfers
 - **Priority 4** (Scheduled interfacility ambulance requests) require a paramedic ambulance on the scene within 30 minutes of the requested pick up time 90 percent of the time.
 - **Priority 5** (Unscheduled interfacility ambulance requests) require a paramedic ambulance on the scene within 3 hours of the request 90 percent of the time.

Findings:

- Response Time requirements for each priority have been met every month during this contract year.



Clinical Performance

PatientCare EMS continues to provide excellent and timely emergency services to our community. Throughout the challenges of 2020 they were able to adapt and continue to serve our community with a focus on safety and quality care. As our community continues to grow and expand I have no doubt that PCEMS will rise to any challenge.

*–Abigail Polzin, MD, FACEP, CMET,
REMSA Medical Board Chair*

REMSA utilizes local patient care protocols based on national standards and evidence-based best practices. The REMSA Medical Director and REMSA Medical Board approve these protocols which are then adopted by REMSA. REMSA, PatientCare EMS, and Sioux Falls Fire Rescue worked for over a year to develop new integrated EMS protocols which were implemented in 2020.

2020 was a challenging year for EMS, nationally and locally. Early in 2020, news began to circulate about a novel virus that was causing pneumonia. As the news began to confirm the global spread of the virus, preparations began for the coming COVID-19 pandemic. Preparation involved both rapidly evolving patient care practices and the need for additional equipment. PatientCare EMS was an integral part of the City’s pandemic response EMS branch, meeting daily to weekly with partners including hospitals, law enforcement, emergency management, fire and health. PatientCare brought additional resources, including two additional ambulances, into the system. One was housed at Sioux Falls Fire Rescue under an agreement to provide redundancy for surge capacity.

Patient care protocols to limit the number of providers making patient contact and the use

of personal protective equipment (PPE) were adjusted as needed. Limiting the number of providers exposed to potential COVID-19 patients contributed to slightly longer scene times. Call volumes initially dropped during the pandemic, as hospitals stopped elective surgeries and transfers slowed down. Transfers rebounded as local hospitals implemented their surge plans when COVID-19 inpatients peaked. This transfer volume added significantly to EMS volume and call volumes eventually rebounded to the point that August of 2020 was a record-setting month for the EMS system.

As call volumes fluctuated, staffing needs varied. EMS schools and field training were shut down to protect students and preserve PPE. This left the pipeline of new hires empty, resulting in staffing challenges for several months. This was a problem across the nation, not just in Sioux Falls. Staffing is recovering, slowly, but the implications of COVID-19 on EMS in general are still being felt. Fewer young people are choosing EMS as a career since the risks of practicing in this environment have become increasingly clear.

Under the direction of the REMSA Medical Board and REMSA Medical Director, we continue a process of external quality assurance. Ambulance call audits for compliance with protocols are undertaken for random calls. High-risk calls including 100 percent of medication-assisted airway management calls, were reviewed by the Medical Director with no calls outside the expected performance. All pediatric calls, cardiac arrests, strokes, heart attacks, and serious trauma calls are reviewed.

ESO, an EMS documentation software provider, publishes an index of key EMS performance metrics based on more than 2,000 EMS agencies and 8.8 million 911 calls. Comparing Sioux Falls PatientCare EMS performance to the ESO key metrics:

Sioux Falls Compared to EMS Benchmarks from 2020 ESO INDEX

	ESO	Sioux Falls
Stroke assessment	72%	75%
Weight recorded for ketamine administration	83%	100%
Transports without lights and siren	83%	94%
Non-Transport dispositions	22%	25%
Overdoses as percent of encounters	2.68%	1.3%
COVID-19 and influenza-like illness	6.6%	18.9%

Additional Clinical Highlights

CARDIAC

12 lead EKG done on patients with sustained pulses after cardiac arrest	93.1%	Aspirin given to patients with cardiac chest pain	84.8%
12 lead EKG done on patients with acute coronary syndrome	90.0%	Heart attack patients transported to appropriate hospital	100.0%
12 lead EKG done on patients > 35 with chest pain within 10 minutes	96.0%	Hospital notification within 10 minutes from an EKG that shows a heart attack	80.2%
Patient contact to cath lab in 90 minutes or less	93.3%	Average time on scene for heart attack	14.5 min.

STROKE

Strokes recognized in the field with advance notification to hospital	100.0%
Average time on scene for stroke patients	13.3 min.
Last known well time documented	82.0%
Stroke patients transported to appropriate hospital	100.0%

TRAUMA

Average time on scene for trauma patients	12.4 min.
Trauma patients transported to trauma center	100.0%
Average Early Trauma Team activation	4.5 min.

ASTHMA

Oxygen saturation documented	100.0%
Appropriate oxygen therapy	100.0%
Appropriate medications given	100.0%

AIRWAY MANAGEMENT

End tidal CO2 measured to confirm successful intubation	96.4%
Airway success on 1st attempt	89.3%
Airway success by 2nd attempt	91.4%
Overall airway success	100.0%

Mission: Lifeline® Gold Plus Recognition

Mission: Lifeline® is the American Heart Association’s national initiative to advance the SYSTEM OF CARE for patients with acute, high-risk, time-sensitive life- and/or quality of life-threatening disease states, such as ST Elevate Myocardial Infarction (STEMI Heart Attack), Non-ST Elevated Myocardial Infarction (NSTEMI Heart Attack), Stroke, and Out-of-Hospital Cardiac Arrest. The overarching goals of Mission: Lifeline are to bring stakeholders together in a collaborative manner and to reduce mortality and morbidity for these patients while improving overall quality of care and patient outcomes.

For 2020, PatientCare EMS received the Mission: Lifeline Gold Plus award for the fourth consecutive year. Mission: Lifeline quality awards recognize an EMS agency’s commitment to ongoing quality improvement. Consistent monitoring of Mission: Lifeline achievement measures translates into better outcomes for cardiac and stroke patients. In addition, Mission: Lifeline awards represent a commitment to cardiac systems of care. Mission: Lifeline awards cannot be achieved without collaboration

from hospitals and other responding agencies. Mission: Lifeline communities are communities that strive to achieve the highest levels of care for cardiac and stroke patients.

This award is testament to the hard work of PatientCare EMS and the entire EMS team, as well as further proof of the incredible level of collaboration between the EMS system team and local hospitals.

Mission: Lifeline quality awards recognize an EMS agency’s commitment to on-going quality improvement. Consistent monitoring of Mission: Lifeline achievement measures translates into better outcomes for cardiac patients. In addition, Mission: Lifeline awards represent a commitment to cardiac systems of care. Mission: Lifeline awards cannot be achieved without collaboration from hospitals and other responding agencies. Mission: Lifeline communities are communities that strive to achieve the highest levels of care for cardiac patients.

—Gary Myers, REMSA Chair



The American Heart Association proudly recognizes

**PatientCare Logistics Solutions-Sioux Falls
Sioux, SD**

Team Organizations: Metro Communications, Sioux Falls Police Department, Sioux Falls Rescue

Mission: Lifeline®-EMS – GOLD PLUS Achievement Award – EMS Agency

The American Heart Association/American Stroke Association recognizes this EMS provider organization, and the EMS provider organizations it supports, as an integrated EMS team. The EMS team has demonstrated continued success in using the Mission Lifeline® program. Thank you for applying the most up-to-date evidence-based treatment guidelines to improve patient care and outcomes in the community you serve.*



Nancy Brown

Nancy Brown
Chief Executive Officer
American Heart Association

John Warner

John Warner, MD
Chairperson, Quality Oversight Committee

Robert A. Harrington

Robert A. Harrington, MD
President, American Heart Association

*For more information, please visit Heart.org/MissionLifeline

Cardiac Arrest Outcomes (2020)

Sioux Falls has participated in The Cardiac Arrest Registry to Enhance Survival (CARES) since 2007. This registry allows our community to compare our cardiac arrest causes and outcomes to an aggregate of other community's results.

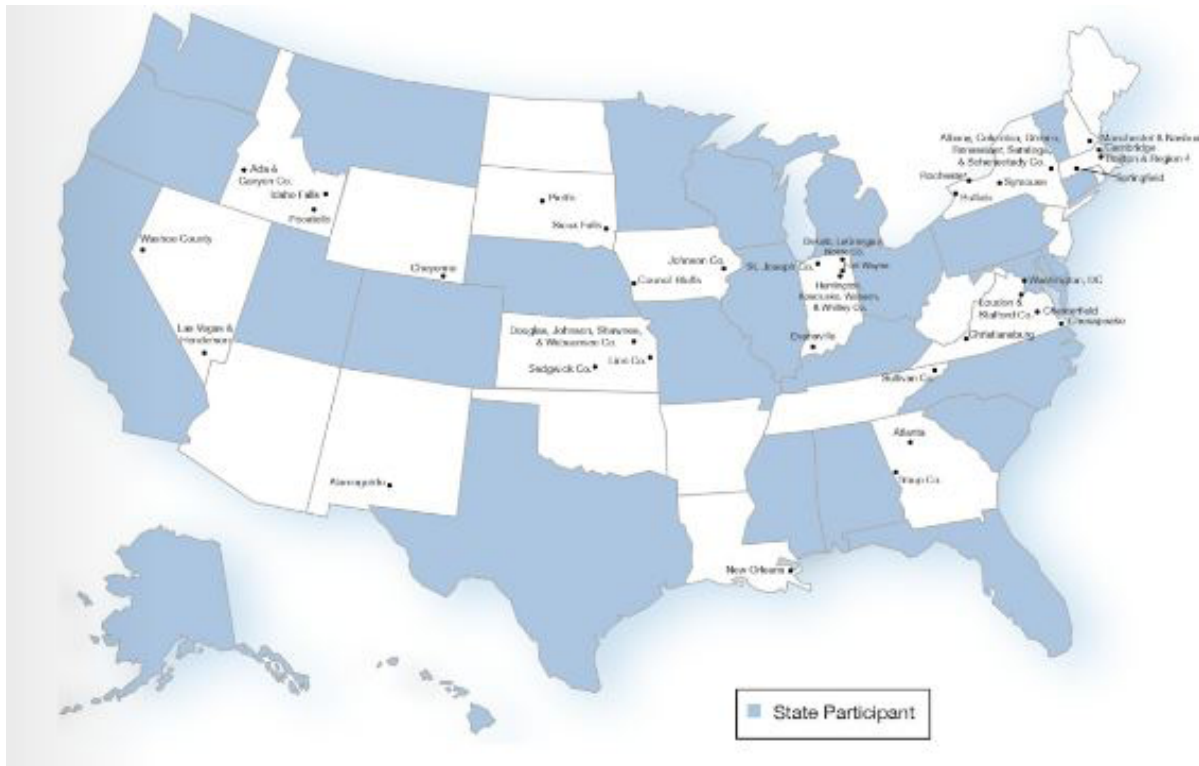
EMS-treated out-of-hospital cardiac arrest (OHCA) affects more than 250,000 Americans each year and is the third leading cause of disability-adjusted life years (DALY) in the United States, behind cardiovascular disease and back pain. Typically, one in ten patients survives to hospital discharge, with 80 percent having no or

moderate neurological disability. Cardiac arrest resuscitation is an important measure of a community's emergency response readiness and involves a team approach.

2020 data taken from the CARES Registry, comparing cardiac arrest survival in Sioux Falls to survival in all CARES registry communities, including 27 states and 56 additional communities, shows the excellent cardiac arrest outcomes our community achieves.

- 32 lives were saved in Sioux Falls in 2020
- All non-traumatic cardiac arrests
 - Sioux Falls—20.8 percent survival
 - All CARES—9.0 percent survival
- Witnessed cardiac arrests of cardiac etiology with a rhythm that can be helped with defibrillation
 - Sioux Falls—60.9 percent survival
 - All CARES—29.2 percent survival
- Bystander CPR Rates
 - Sioux Falls—64.3 percent
 - All CARES—40.8 percent

CARES Participants



Medical Audits/CASE Review

PatientCare EMS participates in quarterly case reviews with all EMS system agencies. Specific calls with learning opportunities or other insights are reviewed by all agencies participating in care. This on-going multi-discipline review process is a valuable process for all agencies involved in the response process. Additionally, specific cases are reviewed with the REMSA Medical Director on an ad hoc basis.

Other Clinical Measures

The nationwide opioid crisis is being felt in Sioux Falls as well. PatientCare EMS and our system’s first responder partners administered naloxone, an opioid reversal agent 183 times last year. While opioid-specific calls are concerning, the total volume of EMS calls involving drugs including meth and/or alcohol is also considerable. PatientCare EMS has been an active partner in planning for transportation to and from The Link, the new triage center for behavioral health issues opening in June 2021. In 2020, 12 percent of cardiac arrests were due to drug overdose, down from 16 percent in the previous year.

As required by contract, every ambulance rendering emergency ambulance services under the agreement has been staffed and equipped to provide paramedic-level care and transport with a minimum of one (1) state certified and locally certified paramedic and one (1) state and locally certified EMT.

As required, every call had a REMSA-certified paramedic providing care to the patient in the back of the ambulance during transport.

All paramedic and EMT staff have the required licensure and certifications. All required staff training, including mass casualty,



	OVERALL CARES	SIOUX FALLS
2020 REGISTRY STATISTICS		
Total registry records	600,000 (since 2005)	1,694 (since 2007)
Non-traumatic arrests in 2020	127,180	154
Catchment area	162,000,000	195,850
2020 EMS STATISTICS		
EMS transporting agencies	2,000	1
Cardiac arrests who were female	38%	32%
Median age	65	61
Arrests in the home	74%	81%
2020 BYSTANDER STATISTICS		
Bystander-witnessed arrests	37%	38%
Bystander CPR	41%	64%
Bystander AED	22%	23%
2020 HOSPITAL STATISTICS		
Hospitals	2,500	3
Patients admitted	24%	42%
Patients discharged alive	9.0%	20.8%
Utstein survival (witnessed with shockable rhythm)	29.2%	60.9%
Cardiac Utstein survival	28.3%	66.7%
Lives saved from cardiac arrest in 2020	11,419	32

driving, infection control, Incident Command, HIPAA, and compliance has been completed and documented. COVID-19-specific training was provided to all staff. This included refresher training in proper infection control procedures and donning/doffing of Personal Protective Equipment (PPE).

EMS systems across the country have faced incredible challenges this past year and a half. These challenges have had an impact at all levels of prehospital care. Our system was no exception and some of these challenges were extremely taxing on our resources. Despite these difficulties, I am happy to report that our system, including all collaborative partners, were able to meet these challenges head on. All partners faced challenges including the potential of force depletion, record numbers of medication shortages, and social and mental health concerns. Many providers faced emotional challenges both at work and at home as quarantines and isolation placed great burdens on individuals and their families.

The EMS System maintained the highest levels of quality. As a collective, we continued efficiencies in all resources and have been able to demonstrate excellent outcomes. All partners from the moment 911 is activated to patient treatment at hospital destinations have risen to the challenges of the past year to provide the high level of care we expect. There are many success stories despite all the hardships the system faced. I am again very proud to have been part of this and I am equally excited to see what the future brings.

Jeff Luther, MD, FACEP, REMSA Medical Director

System Performance

PatientCare EMS facilitates innovative programs to improve system performance within the city of Sioux Falls. Examples of PatientCare EMS's commitment to system innovation include:

- **QUALITY IMPROVEMENT INITIATIVE**

PatientCare EMS expanded its Quality Improvement processes to include streamlined workflow, deep review of low-acuity patients, and staff dedicated to this process. This quality improvement initiative provides valuable feedback to staff, management, and REMSA.

- **PULSE Process (Performance Utilization Late-call System Evaluation)**

A conference call is conducted Monday through Friday and includes at minimum one management representative from REMSA, PatientCare EMS, and Metro Communications. Additionally, it is open to all partners of the Sioux Falls REMSA system including Sioux Falls Police, Sioux Falls Fire Rescue, and the Sioux Falls Health Department. Every late call is reviewed by the participants and other issues relevant to the EMS system are identified and addressed by stakeholders during this conference call.

- **System Status Management (SSM)**

PatientCare EMS utilizes an SSM model in the city of Sioux Falls that focuses on dynamic deployment whereby ambulance resources are strategically placed at different locations within the city based upon both the level of available resources and the best possible location for response. Post locations are updated as needed, including a recent change due to a long-term construction project.

- **New Ambulance Headquarters**

PatientCare EMS moved to a new location in Sioux Falls in 2020. The new location nearly doubles the available space for the organization and allows for the consolidation of the School of EMS and PatientCare EMS in one location. Plans for the new location include redundancies for emergency operations, an expanded fleet repair capability for ambulances and support vehicles, as well as increased secure, temperature-controlled storage which has been shown to be vital in the COVID-19 response.

- **FirstWatch and FirstPass**

In early 2021 PatientCare EMS partnered with Sioux Falls Fire Rescue and Metro Communications to bring FirstWatch to Sioux Falls. FirstWatch is an advanced data analytics tool that alerts responders and leaders in real time of developing situations or trends. PatientCare is also bringing the

FirstPass quality assurance tool that will conduct 100% chart review and streamline clinical feedback to EMTs and Paramedics. Both tools are used retrospectively to monitor system performance and quality.

○ PPE

During the last year personal protective equipment has been a priority in the medical field. PatientCare EMS and their national organization have maintained supplies to meet the needs of the responders without any decrease in service quality.

○ Leased Ambulances

During the global pandemic transport resources were at a premium, to ensure that our community had no lapse in service and reliable continuity plans. PatientCare EMS leased 2 ambulances to Sioux Falls Fire Rescue for a large portion of 2020. These resources remained in a state of readiness during that time.

○ Peplink Modems

PatientCare EMS continues to invest in reliable technology to support their mission. In early 2021 PatientCare EMS replaced all their mobile access points upgrading them to Peplink Transit Mini devices. This ensures reliability and quality of network access on all the ambulances in Sioux Falls.

○ Ambulance Fleet

PatientCare EMS has replaced all the ambulances in their fleet with AEV remounted to 2020 and 2021 Ford E350 models. These ambulances increase response readiness and reliability in our system.

○ Response Equipment

PatientCare is currently deploying all new statpak response bags with updated inventory to align with REMSA medical protocols and increase efficiency and quality. This will also introduce a rapid trauma bag for use in critical trauma calls with short scene times.

○ System Integration

In 2020, Sioux Falls Fire Rescue started to provide Advanced Life Support (ALS) pre-hospital EMS care along with back-up or mutual-aid ambulance transport capability. This EMS system enhancement was in cooperation with PCEMS and coordinated by REMSA. This ALS enhancement has been embraced by the system partners, and was successfully implemented through collaborative team work and a community-first approach. The ALS enhancement program was driven by REMSA to assure we have paramedics in the system who are specially trained to provide ALS care in the most adverse of conditions related to rescue, hazardous materials, special weapons and tactics, explosive ordinance disposal, and all other special operations related incidents. The added benefits for the community from this program include these same paramedics providing ALS care to the community when called upon through the normal EMS response system in place through REMSA. This also includes the capability of SFFR to further support the system with mutual aid ambulance transport when called upon by our EMS system partner PCEMS. This enhancement program truly shows the commitment to our Sioux Falls EMS system excellence by all partners, and the diligent oversight of REMSA to assure our community is provided the highest level of care possible at all times.

Workforce Stability

PatientCare EMS continues to make recruitment and retention of employees a high priority. The COVID-19 pandemic has brought an industry-wide increase in turnover. This trend has impacted many communities throughout the nation. PatientCare EMS identified this trend beginning in 2020 and has taken steps to mitigate the impact here in Sioux Falls.

PatientCare EMS offers competitive benefits to employees including an array of healthcare coverage options and access to Supplemental Insurance through MetLife.

PatientCare EMS utilizes a Professional Development Program to prepare new employees through a week-long orientation period conducted in a classroom setting. Included in this period is an introduction to the company's guiding principles and standard operating procedures, an overview of the Sioux Falls REMSA system, and a comprehensive emergency vehicle operator course. This classroom period builds a strong foundation for new employees and helps assure their success with PatientCare EMS. New employees are then assigned a Field Training Officer who evaluates their performance and skill level while working in the system. The Field Training Officer acts as an instructor and mentor for the employee as they progress through several stages of training with incrementally increasing levels of responsibility until the new employee is prepared to function independently. Throughout this field experience, the new employee is the third team member of a functioning in-service ambulance.

PatientCare EMS continues to refine and improve the Professional Development Program which serves to guide new employees and Field Training Officers through the critical first

months of employment. Field training has been expanded to include paramedics from Sioux Falls Fire Rescue in support of Sioux Falls Fire Rescue's Advanced Life Support expansion.

PatientCare EMS provides all required continuing medical education to employees through its ownership of The School of EMS located in Sioux Falls. In addition, through EMT and paramedic courses offered at the School of EMS, PatientCare EMS continues to provide quality emergency medical personnel to not only Sioux Falls but also the region as a whole.

PatientCare EMS works together with Sioux Falls Fire Rescue to provide quarterly skills verifications to all paramedics within the system. PatientCare EMS and Sioux Falls Fire Rescue supply all required instructors to accomplish this training.

PatientCare EMS continues to make employee engagement a priority within their organization. Management has



conducted annual surveys every year and developed action plans based on this feedback. In late 2020 PatientCare EMS established a multi-level focus group that meets to address concerns and foster innovation for process improvement. This group is comprised of front-line employees and leadership working together to achieve their common goals.

In late 2020 PatientCare EMS held their first annual service awards where responders were recognized for their years of services to the Sioux Falls Community.

The employee retention rate for full-time employees dipped in 2020 to 67.4% which has been an industry trend nationwide. PatientCare EMS has committed to attracting paramedics and EMTs to Sioux Falls by offering signing incentives and a competitive wage adjustment by an average of 6%, both in the effort to remain an employer of choice. With a quick and targeted response to the changing retention rate PatientCare EMS has achieved a full-time staff retention rate of 90.9% since January 1, 2021.

I could not be more proud of our organizations working together under the prehospital care umbrella. Everyone's objective is to provide the best possible care for our residents and visitors. We truly are one team.

*Matt McAreavey,
Sioux Falls Fire Rescue Chief*

Pricing Compliance

REMSA's review of total billing charges compared to total calls of each type shows that all were billed at the level approved in City Ordinance.

Annually, PatientCare EMS engages a qualified entity to conduct a claims review as described in the Office of Inspector General Compliance Guidance. The independent audit reviews randomly selected Medicare claims for

compliance with Centers for Medicare and Medicaid Services rules and regulations, appropriate documentation, medical necessity, and level of service. PatientCare EMS submits this audit report to REMSA within 120 days of the end of each contract year as required in the agreement.

Reporting Compliance

All reporting requirements have been met.

- Response time reports have been submitted monthly as required.
- Clinical, operational, and personnel data is available online at all times for REMSA review.
- Community affairs data has been reported monthly at REMSA meetings.

Summary

REMSA finds the ambulance contractor performance to be acceptable for the past year. The required services were delivered while improving system quality. Specific system improvements and actions to improve workforce stability continue to increase workforce stability. There were no breaches of the agreement. The required performance security bond remains in place. We look forward to PatientCare EMS' next year of service to the community.

