

Ambulance Contract Performance Report

May 20, 2020
Submitted July 7, 2020



AMBULANCE CONTRACT PERFORMANCE REPORT

CONTRACT YEAR ENDING MAY 20, 2020

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.

The people are in a very safe community through the collaborative private public partnership we have crafted here.

—Margaret Sumption, REMSA Medical Board Member

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**



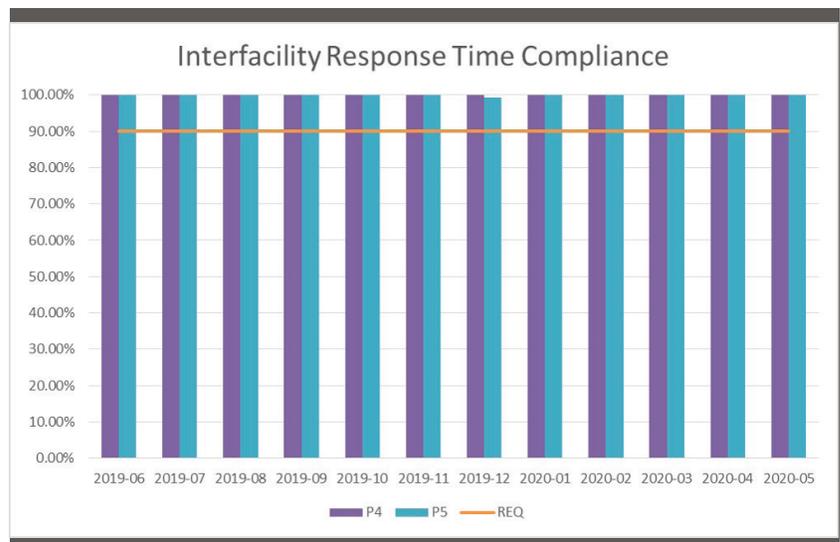
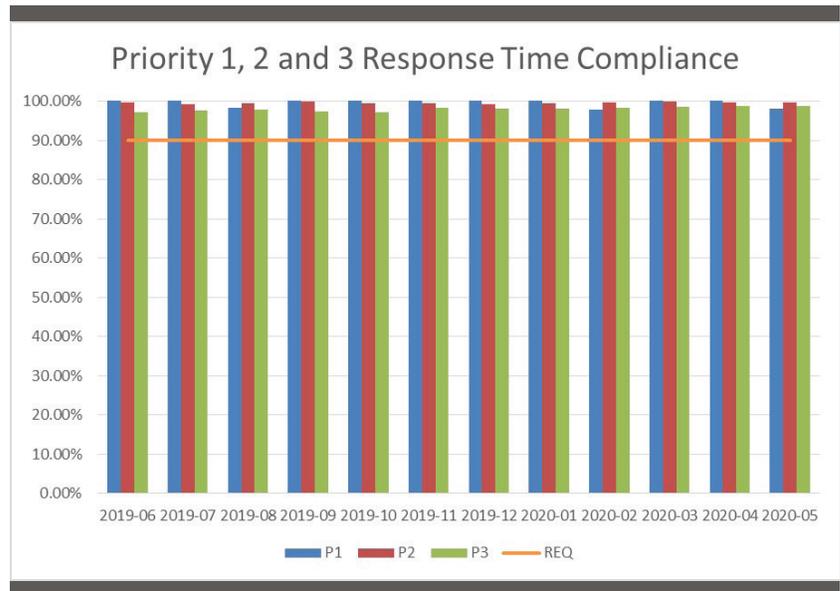
Response Time Performance

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

The service provided to our city by PatientCare EMS over the past five years has been exceptional. They have been eager to hear the needs of our citizens and flexible with change. The quality of care has only improved with time—and they maintain great relationships with our City services (Police, Fire, Dispatch), the hospitals in town, and the people of Sioux Falls. The past year gave us many city-wide challenges including severe flooding, tornadoes, and a pandemic—along with all the other emergency medicine needs of a growing city of our size—and PatientCare EMS rose to the occasion each time.

—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 March 2020.

Additionally, early in 2020, news began to circulate about a novel virus in China that was causing pneumonia (Coronavirus). As the news began to confirm the global spread of the virus, we started preparing and planning for how EMS would respond in the event this novel virus became a pandemic. This preparation involved both rapidly evolving patient care practices and planning for equipment needs.

Pandemics strain both our hospital systems and our EMS system. Planning processes identified that not only would PatientCare EMS be called

on to transport acutely sick individuals to the emergency room, but they would also be called upon at the same time to move convalescing individuals who still need care to designated lower-acuity facilities. It was also recognized that at the same time, PatientCare EMS might have to step in and help regional EMS systems whose staffing is suffering due to employee or volunteer illness while they are also facing the same challenges.

EMS leadership recognized this approaching public health emergency early on. Mike Bureau, PatientCare COO, contacted the state, Sioux Falls Fire Rescue, and REMSA to open a dialog about balancing the needs of the Sioux Falls 911 system, the need for Sioux Falls inter-facility transfers, county and regional needs, and even statewide transfer demands, all while facing the prospect of a reduction in workforce due to illness. Those discussions resulted in additional resources and redundancy being added to our prehospital EMS response system for at least a 90-day period.

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 1,360 EMS agencies and 6.5 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%
ETCO2 after advanced airway procedure	98%	96%
12 lead performance in adult patients experiencing chest pain	83%	99%
Aspirin administration in adult patients experiencing chest pain	53%	85%
Percent of patients with suspected overdose	2%	1%
Non-lights and siren transport from scene	87%	94%

Additional Clinical Highlights

CARDIAC

12 lead EKG done on patients with sustained pulses after cardiac arrest	94.7%	Aspirin given to patients with cardiac chest pain	85.0%
12 lead EKG done on patients with acute coronary syndrome	98.8%	Heart attack patients transported to appropriate hospital	100.0%
12 lead EKG done on patients > 35 with chest pain within 10 minutes	83.0%	Hospital notification within 10 minutes from an EKG that shows a heart attack	89.1%
Patient contact to cath lab in 90 minutes or less	92.9%	Average time on scene for heart attack	14 min.

STROKE

Strokes recognized in the field with advance notification to hospital	97.6%
Average time on scene for stroke patients	13 min.
Stroke patients transported to appropriate hospital	100.0%

TRAUMA

Average time on scene for trauma patients	13 min.
Trauma patients transported to trauma center	100.0%
Average Early Trauma Team activation	5.5 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 third 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.

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—Gary Myers, REMSA Chair



The American Heart Association proudly recognizes

**PatientCare Logistics Solutions
Sioux Falls, SD**

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

The American Heart Association/American Stroke Associations recognizes this EMS provider organization for demonstrating 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 A. Brown

Nancy Brown
Chief Executive Officer
American Heart Association

Lee Schwamm

Lee Schwamm, MD, FAHA
Chairperson, Quality Oversight Committee

Ivor Benjamin

Ivor Benjamin, MD
President, American Heart Association

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

Cardiac Arrest Outcomes (2019)

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 240,000 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.

2019 data taken from the CARES Registry, comparing cardiac arrest survival in Sioux Falls to survival in all CARES registry communities, including 28 states and 48 additional communities, shows the excellent cardiac arrest outcomes our community achieves.

- All non-traumatic cardiac arrests
 - Sioux Falls—14.5 percent survival
 - All CARES—10.5 percent survival
- Witnessed cardiac arrests of cardiac etiology with a rhythm that can be helped with defibrillation
 - Sioux Falls—55.6 percent survival
 - All CARES—33.4 percent survival

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 ongoing multi-discipline review process is 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 to 165 patients last year. While opioid-specific calls are increasing, the total volume of EMS calls involving drugs and/or alcohol is also considerable. Last year 24 percent of all EMS calls [excluding interfacility transfers] had one or more alcohol and/or drug use indicators noted, with 92 percent of those having alcohol involved. These numbers are consistent with the previous contract year. In 2019, 16 percent of cardiac arrests were due to drug overdose, up from 14 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



CARES 2019

	OVERALL CARES	SIOUX FALLS
2019 REGISTRY STATISTICS		
Total registry records	500,000 (since 2005)	1,323 (since 2007)
Non-traumatic arrests in 2019	100,956	152
Catchment area	143,000,000	190,519
2019 EMS STATISTICS		
EMS transporting agencies	1,800	1
Cardiac arrests who were female	38%	38%
Median age	65	61
Arrests in the home	70%	72%
2019 BYSTANDER STATISTICS		
Bystander-witnessed arrests	38%	32%
Bystander CPR	42%	62%
Bystander AED	23%	19%
2019 HOSPITAL STATISTICS		
Hospitals	2,200	3
Patients admitted	28%	34%
Patients discharged alive	10.5%	14.5%
Utstein survival (witnessed with shockable rhythm)	33.2%	47.6%
Cardiac Utstein survival	33.4%	55.6%
Lives saved in 2019	10,641	22

and certifications. All required staff training, including mass casualty, driving, infection control, Incident Command, HIPAA, and compliance has been completed and documented. Starting in March, 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).

The EMS community in Sioux Falls continues to flourish. All partners are valuable contributors, creating an impressive collaboration of prehospital providers. The quality of prehospital care continues to be very successful, utilizing best practice standards. These quality standards have resulted in excellent outcomes as evidenced in our quality assurance data. The citizens of Sioux Falls can have confidence that they are receiving high-quality care from this high-performance EMS system.

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

In early 2019, PatientCare Logistics expanded its Quality Improvement and Quality Assurance processes to include a streamlined workflow, deeper review of low-acuity patients, and an increase in staffing dedicated to this process. This change was driven by changes in technologies related to electronic medical records and a desire to stay ahead of rising calls for service and population growth in Sioux Falls. 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 ambulances' 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.

Pit Crew CPR

PatientCare EMS, along with system partners at Metro Communications, Sioux Falls Fire

Rescue, and Sioux Falls Police, participates in a focused review of every cardiac arrest in order to monitor all aspects of cardiac arrest performance. Additional opportunities for improvement of the pit crew resuscitation model, including mechanisms to reduce interruptions in CPR and improvement in the speed of compressions, are identified and implemented. In response to COVID-19 in the community, the Pit Crew CPR method was refined in conjunction with EMS partners in order to preserve personal protective equipment (PPE) and minimize potential exposure to staff.

Replacement of ePCR Devices

In early 2020, PatientCare EMS replaced the devices used to collect and input patient care reports. This change increased security and reliability in the field for staff. Additionally, it allowed for the current ePCR devices to be repurposed to serve as more powerful MDTs (Mobile Data Terminals), improving electronic communication with Metro Communications and improving performance for end-user field staff.

Ambulance Fleet Replacement

Starting in early 2020, PatientCare EMS began the process of replacing all ambulances in the current fleet to new chassis. This process improves fleet reliability and satisfies contractual requirements in place with the City of Sioux Falls.

New Ambulance Headquarters

In late 2019, PatientCare EMS began plans to move to a new location in Sioux Falls. 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.

○ Increased Special Events Resources

In early 2019, PatientCare EMS expanded the available resources for special events staffing by adding an Ambulance Kubota to its available response assets. This addition provides flexibility in responses related to large community events and expands access to hard-to-reach patients.

○ New Vehicle Safety Monitoring Equipment

PatientCare EMS invested in a new vehicle safety monitoring system for all ambulances and support vehicles. The new system replaces the previous system that has been used and includes improved real-time monitoring, tracking, and incident notification. This innovation improves safety for the community while driving in Sioux Falls.

Workforce Stability

PatientCare EMS has taken several key steps to help mitigate unnecessary employee turnover including continuing to provide a competitive wage. Since adjusting pay scales in 2018 to reward prior experience, PatientCare EMS continues to offer average annual salary adjustments of 3 percent.

PatientCare EMS and the School of EMS maintain a partnership with Compass Military Services to serve as a business sponsor and training facility for *Start Today SD*, an apprenticeship program through the South Dakota Department of Labor and Regulation. This collaboration provides a pathway of success and support for individuals seeking to transition into EMS-related careers.

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

PatientCare EMS utilizes a Professional Development Program to prepare new employees through a two-week 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 Advance 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 has made significant investment in employee appreciation including providing a holiday party, catered holiday meals for on-duty employees, and a social-distanced cookout for employees during EMS Week which fell during peak of COVID-19 in the community.

PatientCare EMS conducts Employee Engagement Surveys in the Sioux Falls system. Employee Satisfaction Average was below internal benchmarks last year. Review of data and dialog with staff revealed that this shift was due to a system design and corporate change. Employees also expressed concerns about technology. In response, substantial improvements in hardware were brought online

in early 2020 to address technology concerns by the employee group.

All supervisors attend SafeTech Solutions, LLP, EMS Leadership Academy, a dynamic, four-level 60-hour educational program designed to prepare participants to lead and manage today's EMS. This is valuable training for supervisors who are often in their first leadership role.

The employee retention rate for full-time employees for the entire fiscal year is currently at 74 percent with average employee attrition rate by month at 2.7 percent compared with last year's 3 percent.

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.

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

—Gary Myers, REMSA Chair

