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System Enhancements and Implementation Plan

SANTA BARBARA COUNTY, CALIFORNIA

EMS SYSTEM ASSESSMENT
PHASE 2 AND 3 REPORT

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CONSULTANT REPORT

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Executive Summary

Phase 2 and 3 of the Santa Barbara County EMS System Review was designed to obtain stakeholder input on the recommendations from the Phase 1 process. Four focus areas were identified by stakeholders as those most important to improve the system.

Goal 1: Improve Coordination/Management of Interfacility Transfer (IFT) System
Goal 2: Improve Coordination/Management of EMS for Mental Health Patients
Goal 3: Provide Appropriate Flexible Access to Treatment for Aging and At Risk Patients
Goal 4: Improve Quality Metrics System-Wide

In a series of meetings over three days, stakeholders described specific issues and suggestions for system enhancements. The process of achieving these four enhancement goals and other actionable items outlined in the Phase 1 process will require collaboration between stakeholders, continued commitment to engagement by implementation task groups, additional staff resources and varying amounts of time. Achieving the enhancements should be codified as part of any new provider agreement.

Regardless of the decision to renegotiate an agreement with its existing grandfathered provider or to conduct a procurement, the Santa Barbara County Emergency Medical Services Agency (SBCEMSA) will need to prepare detailed performance based specifications that incorporate both the proposed system enhancements and provide flexibility for future revisions. The typical timeframe to conduct a renegotiation with enhanced performance parameters is 4 to 7 months compared to 14 to 18 months to conduct a full Request for Proposal (RFP) and procurement process, assuming no legal challenges.

Long term, the County must prepare to adapt to unprecedented changes that will occur in EMS systems throughout California in the next 10 years. These include changes in EMS system financing and reimbursement, clinical scopes of practice based on research and outcomes, delivery methods and increasing call volumes. The full parameters of these changes are as yet unknown, however, systems in the US are already experiencing many of these challenges:

- Changing expectations of payers and patients that will impact and potentially reduce and redistribute revenues.

- A move to transport patients to alternative destinations, provide on scene and in home paramedic care, all of which depend on sophisticated and often regionalized technology, starting in dispatch centers.
- More emphasis on patient outcome metrics and less emphasis on response time metrics.
- Accountability throughout systems that includes oversight and monitoring of individual provider personnel.

Phase 2 Stakeholder Goals and Objectives

There are a number of goals and objectives that can and should be worked on immediately and that can be achieved in the current environment. There are other goals and objectives that can be operationalized in the context of a contract renegotiation or in the context of a procurement. Below is a summary of the goals and associated objectives that were developed by stakeholders in the Phase 2 meetings.

1. Improve Coordination/Management of Interfacility Transfer (IFT) System

1.1 Amend current response and transport regulations, transport agreement or RFP specifications to allow for alternative staffing and vehicles in ensuring medical necessity, patient and crew safety.
1.2 Implement an IFT transport coordination center to serve the entire system.
1.3 Determine issues regarding system surge capacity.
1.4 Determine whether CCT and specialty transports need to be more available to the system.

2. Improve Coordination/Management of EMS for Mental Health Patients

2.1 Convene a multidisciplinary task force consisting of EMS, the Public Health Department, law enforcement, ambulance providers, receiving facilities and other interested stakeholders to revise the EMS system's response protocol for behavioral health patients.
2.2 Determine feasibility of awarding a separate agreement for longer distance/duration 5150 mental health transports.
2.3 Determine law enforcement's current role in transporting 5150 patients.
2.4 Expand the use of "safety cars" and/or other vehicles for 5150 transports.
2.5 Designate a single liaison point between EMS and behavioral services.
2.6 Consider staffing a specialty crisis team to transport 5150 patients.
2.7 Designate / build and staff a teen crisis center.

3. Provide Appropriate Flexible Access to Treatment for Aging and At Risk Patients
3.1 Identify and develop alternate treatment plans for 50 most frequent users of the 911 system.
3.2 Consider implementation of a Nurse Health Phone Line to receive from 911, the low acuity "Omega" calls that are deemed appropriate to further triage.
3.3 Reduce utilization of EMS Transport services to perform "lift assists" at long term and other care facilities.
3.4 Designate working group to research existing alternative destination plans and ET3 feasibility.
3.5 Research existing community paramedicine programs and review with system stakeholders in anticipation of enabling legislation.

4. Improve Quality Metrics System-Wide
4.1 Increase EMS medical direction and quality improvement capability commensurate with EMS system scope to facilitate current and expanded metrics reporting.
4.2 Using GAMUT and/or other clinical outcome tools as a guide to determine applicable metrics to be measured.
4.3 Determine data sources for development of metrics regarding adherence to protocols for all responders in the system.
4.4 Convene working group to include crew representatives, to complete recommendations regarding specific metrics to be measured or safety issues for patients, first responders and transport personnel.
4.5 Select a software platform to share real-time metrics system-wide.
4.6 Survey, using an independent entity, various stakeholder groups to determine service perceptions and facilitate benchmarking.
4.7 Increase community engagement/awareness of EMS performance metrics.

The pending decision and any future potential changes in the EMS system do not preclude the need for system enhancements nor materially limit stakeholders' ability to achieve those enhancements. Santa Barbara EMS system stakeholders desire to take advantage of identified improvement opportunities, correct specific system deficits and implement new concepts regardless of the County's decision to renegotiate or conduct a procurement. The challenge for the County is to build flexibility into the system that will allow service delivery models to evolve and achieve the outcomes noted above.

The Renegotiate or Procurement Decision

As backdrop to this project, the County will be deciding whether to renegotiate the current ambulance transport agreement with American Medical Response (AMR), or conduct a procurement process to solicit proposals for the provision of that service. The

analysis conducted in Phase 1 of the project described the advantages and risks of each pathway.

Contract Renegotiation

For a renegotiation process, the resolution of policy issues and the specification / language drafting usually requires 4 to 7 months. That document is used to frame the final contract negotiations with the vendor and will require intense involvement of SBCEMSA staff with support from County Counsel. The outcomes from the stakeholder involvement in Phase 1 and 2 will inform desired system changes, subject to the bounds of current scope and manner.

Procurement Process

The procurement process involves developing new specifications with several defined steps in the process culminating with the State EMS Authority's approval prior to the release of RFP documents. The process typically requires approximately 14-18 months and includes the following key steps.

RFP Language — Development of RFP language is the initial task in this process. The ultimate goal of an RFP document is to clearly profile the system, its performance requirements, and the administrative procedures that will be used during the procurement and throughout the term of the Agreement. A well-developed RFP allows the proposer to sharpen their pencils and provide the community optimum value.

Santa Barbara's RFP should embody the clinical, operational, administrative oversight, and financial protection provisions for the community. This will lay the foundation for the detailed Agreement that the County will enter into with its provider. Typically, this document is 100-150 pages and includes 10-15 detailed attachments that assist potential bidders in conducting the research necessary to present a tightly defined cost proposal. Preparing the RFP would typically involve a consultant preparing draft RFP documents, assisting the County in preparing supporting attachments, and outlining the rational for specific language. Specific timelines will need to be developed and validated and the draft RFP will require review and approval by County Counsel, County Purchasing, and finally the State EMS Authority.

Pre-Proposal Conference — The pre-proposal conference offers potential proposers the opportunity to have their questions answered in a professional manner. Tasks leading up to the pre-proposal conference involve coordination with the County Purchasing Division to determine how information can flow within the administrative procedures used by the County. Clear, concise and timely answers are required to facilitate questions raised during the pre-proposal conference and during a designated comment/question period. Appropriate documentation is required to avoid litigation. Questions and answers from the conference are typically posted on the County's web site to facilitate transparency of the process.

Review Panel — A review panel will need to be established and should be comprised of individuals that have clear expertise and who are objective. The panel should be a balanced multi-disciplined group that will have the confidence of elected officials. The process used by the panel has to clearly demonstrate the objectivity of the process. Scoring tools will need to be developed and the panel's activities must be documented to ensure that it can withstand a protest or legal challenge.

Coordination of Approval Processes — County Counsel and County Purchasing will need to work closely with the SBCEMSA to provide timely review and approvals of documents and procedures throughout the RFP process. Review and/or approval by the Board of Supervisors may be necessary at various milestone points. As noted earlier, the State EMS Authority also reviews and approves, or alternatively recommends modifications to, the specifications and/or the RFP process.

For use in an RFP or to be used as the framework for a renegotiation, carefully crafted specifications should be flexible enough to address expected changes in healthcare and potential regulatory changes. The resulting agreements must require clear accountability for clinical, operational and fiscal performance while at the same time enhancing the transparency of those same elements.

Stakeholder Involvement

The Phase 1 system assessment and Phase 2 development of issues and solutions was accomplished through extensive stakeholder involvement. There were 13 stakeholder meetings held during two on-site visits for Phase 1. More than 60 individuals attended these meetings and provided valuable input. Attachment A is a summary of system observations and actionable items from Phase 1 stakeholder meetings.

Phase 2 involved four stakeholder meetings that took place over three days and that focused on specific topic areas. For most of the sessions, the same individuals were invited to and attended each of the four meetings. Participants included representatives from Santa Barbara County Fire Chiefs Association, representatives from American Medical Response, CALSTAR, Cottage Health, Marian Regional Medical Center, Santa Barbara County Executive Office, County Behavioral Wellness Department, the Santa Barbara County EMS Agency (SBCEMSA), the Santa Barbara County Public Health Department Director, and Medical Directors from AMR, Santa Barbara County, and Santa Barbara City Fire. Attachment B provides a list of agencies that participated in Phase 1 and 2 stakeholder meetings.

This report is the culmination of Phases 1, 2 and 3 of the EMS System Review and includes a review of the changing landscape for EMS both nationally and in California, and a summary of key system enhancements and implementation steps for the Santa Barbara system.

The Changing Landscape for EMS

As part of the Phase 2 and 3 report the County Public Health Department Director requested that *FITCH* provide an overview of how EMS is changing throughout the nation. This section outlines some of the key changes and documents that will guide the evolution of EMS system delivery in Santa Barbara County (as specifically authorized by state laws and regulations).

EMS systems were initially created to meet the immediate needs of the acutely ill and injured. While EMS meets these objectives, it does so in relative isolation from other health care and community resources. The potential positive effects of EMS, in terms of improved health for individual patients and the community, remain unrealized.[1]

Agendas for Change

Over the past decade, there were three seminal efforts to explore the integration of EMS into the larger healthcare system: The National Highway Traffic Safety Administration's *2010* and *2050 EMS Agendas for the Future* and the Institute for Healthcare Improvement's *Triple Aim Initiative*. Each of these efforts were the result of collaborations across the healthcare environment, and the results have been successful in anticipating and defining EMS's evolving role for the future. What follows is a brief summary of the salient points from each of the referenced documents.

2010 EMS Agenda for the Future—

EMS of the future will be:

- Community-based health management that is fully integrated with the overall healthcare system,
- Developed from redistribution of existing health care resources,
- Integrated with other health care providers and public health and public safety agencies.

EMS Agenda 2050—

The 2050 Agenda builds out the new vision for people-centered possibilities to advance EMS systems. Successful EMS systems will be designed around the following six principles:

- Adaptable and Innovative
- Inherently Safe and Effective

[1] National Highway Safety Traffic Safety Administration, "Integration of Health Services", *Emergency Medical Services Agenda for the Future 2010*, (paraphrased), p. 9.

- Sustainable and Efficient
- Socially Equitable
- Reliable and Prepared
- Integrated and Seamless

Triple Aim Initiative—

Triple Aim is a framework initially developed by the Institute of Healthcare Improvement that has been widely accepted to optimize health systems' performance. The concept is based on three concise, linked goals:

- Improving the patient experience of care, including quality and satisfaction,
- Improving the health of populations, and
- Reducing the per capita cost of health care.

The solution initiatives identified by Santa Barbara stakeholders closely align with the solutions in the forward looking documents noted above.

ET3 — Changing the Reimbursement Model

Current reimbursement models for EMS continue to incentivize transport to hospital emergency departments regardless of the patient's medical needs or desires. The Journal of the American Medical Association (JAMA) reported in June 2019 that of the estimated 22 million 911 calls in the US, some 66% were transported to a hospital. Of those transports with billable records, 33% were billed to Medicare, 31% to private insurers, 20% to Medicaid and 15% were self-pay.[2] Combined, 53% were billed to Medicare or Medicaid.[3] For comparison purposes, 75% of Santa Barbara County transports were billed to Medicare or Medicaid.[4]

In February 2019, the Center for Medicare and Medicaid Innovation (CMMI) announced a five year pilot project that could provide a more patient centered approach to out-of-hospital emergency care. The Emergency Triage , Treat and Transport (ET3) Model is described as a "voluntary, five-year payment model that will provide greater flexibility to ambulance care teams to address emergency health care needs of Medicare

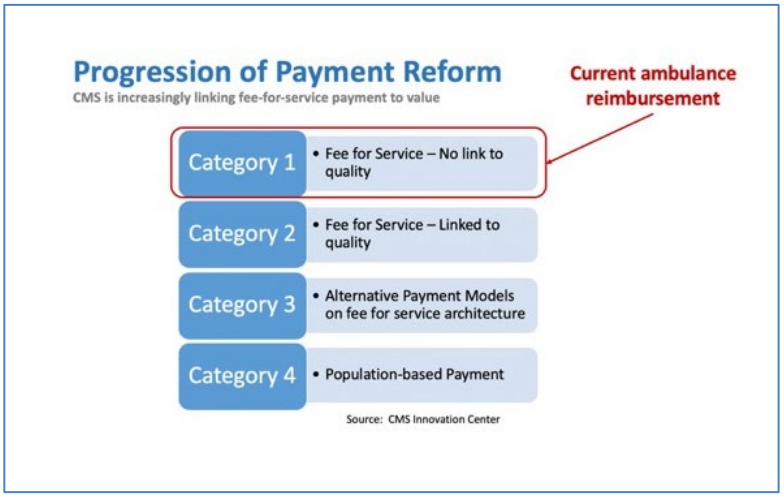
[2] K.G. Munjal, "Realignment of EMS Reimbursement Policy: New Hope for Patient-Centered Out-of-Hospital Care", <https://jamanetwork.com/journals/jama/fullarticle/2737024> June 21, 2019, accessed June 2019.

[3] Note, billable sources and collection sources are materially different; private insurance companies typically comprise the majority of actual revenues collected by transport providers.

[4] SBC billable transports were as follows: 51% Medicare, 24% Medicaid, 14% insurance and 11% self-pay.

beneficiaries following a 911 call."[5] Figure 1 below is a graphic depicting the anticipated change of EMS reimbursement from fee-for-service to value for service.

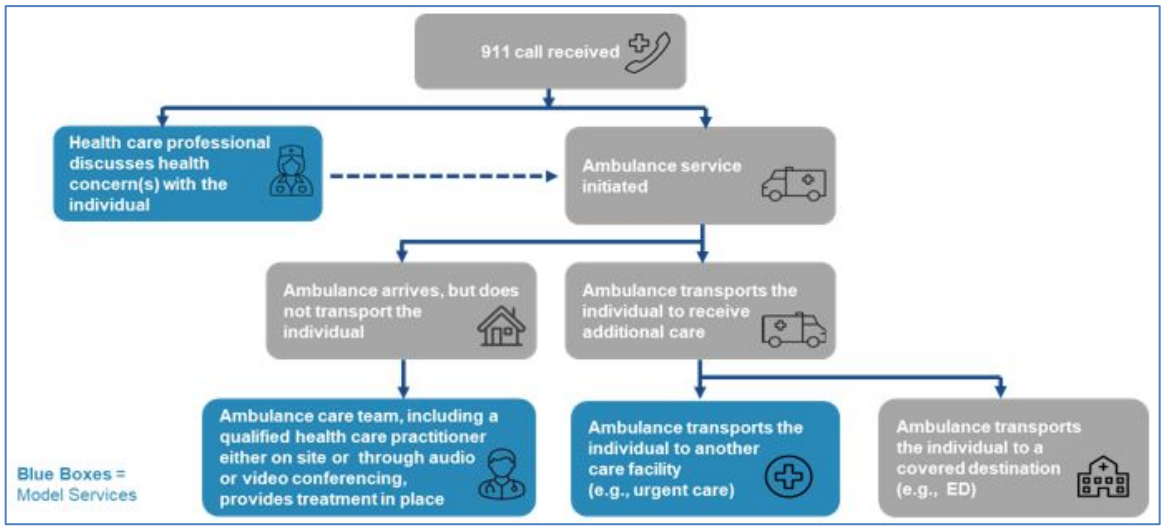
Figure 1. EMS Payment Reform



The ET3 program does not intend to reduce Medicare's annual ambulance expenditures, but rather projects significant annual savings from reduced hospital emergency department expenditures. The ET3 model anticipates reimbursing for treatment in place, on scene or connected via telehealth. EMS services are encouraged to partner with hospitals to conduct post-discharge and other in-home evaluations, thereby reducing otherwise avoidable hospital readmissions. Figure 2 below indicates how the ET3 model transforms an ambulance system.

[5] "Emergency Triage, Treat, and Transport (ET3) Model – Fact Sheet", Centers for Medicare & Medicaid Services, February 14, 2019, <cms.gov>, accessed March 2019.

Figure 2. ET3 Model[6]



Barriers to Change

The ET3 model will need to demonstrate that EMS professionals can safely and consistently identify patients with non-emergency conditions. Paramedics, dispatchers and other extended care professionals will require additional education. EMS *systems,* as a whole, will need to implement and continuously monitor evidence-based algorithms, clinical decision support and online medical control.

In May 2019, the CMS Center for Medicare and Medicaid Innovation released a preview of the application for participation in the ET3 program. Participation under this program is dependent upon state enabling legislation along with a number of system requirements. The document has been appended as Attachment C.

Quality Metrics

Quality metrics (not yet announced) will be an important component of the ET3 model and will include a "5% upside-only incentive" – in other words, a pay-for-performance initiative. Measures will be needed to assess 911 call handling, nurse triage, treat-and-release policies, alternative destination management, and telehealth.

California Regulatory Agencies

EMS systems in California are highly regulated by the State EMS Authority. The Authority will need to lead efforts to adjust systems and allow the implementation of ET3 programs. The State EMS Authority did conduct a series of community

[6] Ibid., p. 4.

paramedicine pilot programs from 2015 through 2018, which indicates that the EMSA encourages innovative models. Medicaid beneficiaries have particularly high EMS utilization rates, thus the State will have the greatest opportunity to benefit from reduced health care spending.

Dispatch Center Upgrades Needed

The Santa Barbara EMS system will not be ready take full advantage of the ET3 program until it updates and improves its 911 dispatch systems. An essential first step is to fully integrate Medical Priority Dispatch (MPDS) in all of the County's Public Safety Answering Points (PSAPs). Once an evidence based EMD system is in place, then Santa Barbara could be positioned to apply for ET3 model funding to support a medical triage function for low acuity 911 calls.

Community Paramedicine Program (CPP)

A community paramedicine program would allow the system to fully realize both the ET3 Model and the EMS Agenda visions. A CPP allows for extended care such as on-scene treatment with no transport, in-home follow up for patients with chronic disease, and after hospital discharge follow up evaluations.

A fully implemented Community Paramedicine program would include MPDS, a nurse triage phone line, alternative destination and care components. At that point, the EMS system would achieve the Triple Aim Initiatives, preserve more expensive resources for life-threatening emergencies and have a net effect of lowering overall costs for EMS providers and the health care system.

If CMS and the EMS community can "successfully address patient safety, quality, and local and state regulations and mitigate unintended consequences, the ET3 model experiment could help EMS realize its full potential."[7]

Examples of Integrated EMS Community Health Programs

Starting in 2012, the Centers for Medicare and Medicaid funded several community health "innovation grants" across the US. The delivery models were varied but with the common theme of responding to low acuity 911 calls using non-traditional staffing and vehicles. All addressed the Triple Aim goals.

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[7] K.G. Munjal, "Realignment of EMS Reimbursement Policy: New Hope for Patient-Centered Out-of-Hospital Care", <https://jamanetwork.com/journals/jama/fullarticle/2737024>, June 21, 2019, accessed June 2019.

Some projects relied only on CMS funding and were not sustained beyond the grant period. Other endeavors formed partnerships with hospitals and other health care facilities and the programs continue today. All of these programs resulted in a reduced number of patient transports to emergency departments.

There were two key components that appear in all of the programs. First is the use of some form of nurse health phone line access that was either a non-emergency line or one that could receive triaged calls transferred from the 911 system. The nurse health line further assessed and triaged patient calls, provided 24/7 access to a patient navigator and linked patients to a number of social and alternative medical services. Second is the use of specially trained community paramedics who could provide extended care in-home, on scene or with the aid of telehealth communication with a physician.

The communities consistently reported that frequent users of the 911 system were better and more appropriately served and 911 response resources were relieved of unnecessary responses to low acuity, non-life-threatening medical events. In particular, the programs benefitted rural communities that were lacking in urgent care and physician services.

Figure 3 is a partial list of agencies and their programs that were funded by the CMS innovation awards.

Figure 3. CMS Innovation Award Programs

Agency	CMS Innovation Program
Anaheim Fire & Rescue, Orange County, CA	Community Care Response Unit
Los Angeles City Fire Department, CA	Advanced Provider Response Unit
MedStar Mobile Healthcare, Greater Ft. Worth, TX	Mobile Integrated Healthcare Program
Mesa Fire & Medical Department, Mesa, AZ	Community Care Response Initiative
Regional EMS Authority (REMSA), Reno & N. Nevada	Community Health Program

Once current reimbursement rules and other local and national policies are reformed to allow EMS systems greater flexibility, *FITCH* believes that many communities will embrace the community health care model.

Changes in the California Regulatory Landscape

Regulatory and/or governance changes related to EMS at the state level that could impact EMS service delivery in Santa Barbara County should be anticipated.

There has been a "push-pull relationship" between the California Fire Chiefs Association and the Emergency Medical Services Authority in recent years over interpretation of legislative and regulatory authority. The relationship between the State EMS Authority and Cal-Chiefs has been described as strained, as a result of recent litigation. Earlier this year Cal-Chiefs petitioned the California Office of Administrative Law to rule that various guidelines, enforcement letters and criteria published by the California Emergency Medical Services Authority (CalEMSA), dating back to 1985, are unlawful ("underground") regulations.[8]

Large scale change occurs through the legislative process, which has also been described as contentious. During any legislative session there are typically a wide variety of measures introduced that impact EMS. At this writing there are currently nearly 50 bills pending before the legislature potentially impacting delivery of EMS.[9]
Two of these could impact the manner in which Santa Barbara County provides or contracts to provide EMS service.

SB-438 Emergency Medical Services: Dispatch

Would prohibit a public agency from delegating, assigning, or contracting for "911" emergency call processing (dispatch) or notification duties regarding the dispatch of emergency response resources unless the delegation or assignment is to, or the agreement is with, another public agency. The bill would exempt from that prohibition a public agency that is a joint powers authority that contracted for emergency response resources on or before January 1, 2019, under certain conditions. The bill would authorize a public agency that contracted for dispatch of emergency response resources on or before January 1, 2019, to continue that contract or to renegotiate or adopt new contracts if the public agency and the public safety agencies that provide prehospital emergency medical services consent.

AB-1544 Community Paramedicine or Triage to Alternate Destination Act

Would establish within the Emergency Medical Services System and the Prehospital Emergency Medical Care Personnel Act until January 1, 2030, the Community

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[8] California Fire Chiefs Association, Inc., Petition For Determination of Alleged Underground Regulation Of Exclusive Operating Areas For Emergency Ambulance Services By The California Emergency Medical Services Authority (1 of 3)", letter, February 4, 2019, <https://calchiefs.org/download/oal-petition-1-of-3-pdf/?wpdmdl=3353>, accessed July 2019.
[9] California EMSA Legislative Report, June 24, 2019, <https://emsa.ca.gov/wp-content/uploads/sites/71/2019/06/EMSA-Legislative-Update-June-24-2019.pdf>, accessed July 2019.

Paramedicine or Triage to Alternate Destination Act of 2019. The bill would require the authority [EMSA} to develop a community paramedicine or triage to alternate destination program, as defined, to provide specified community paramedicine services. The bill would require development of regulations to establish minimum standards for a program and would further require the Commission on Emergency Medical Services to review and approve those regulations.

In addition to pending legislation, State EMSA Director Howard Backer, MD recently announced he will retire this summer providing a transition period that could affect EMSA policies related to the EMS oversight and guidance it provides to Santa Barbara County.

System Measurement and Metrics Changes

Throughout the nation there is effort to change the way EMS success is measured to get the best results for a condition or illness. Accurate assessment of quality indicators and patient outcomes requires the use of a standard language permitting comparisons among programs. The long-term goal is to be able to determine and report outcomes based on scientific evidence for a wide variety patient interactions and demonstrate the empirical value of EMS programs.

These efforts, sponsored by the National Highway Safety Administration's Office of EMS, have been underway in various forms since 2002. In California, the Core Measures project provided a foundation of basic measures for consideration. The state EMSA currently coordinates data collection though CEMSIS[10]. Multiple registries for critical cases (e.g., trauma, stroke and STEMI/cardiac) have been developed to circumvent the incongruent definitional issues, patient care reporting systems and disparate hospital data bases. As noted in the Phase 1 report, SBCEMSA has collaboratively developed a process for reporting trauma, stroke and STEMI outcomes.

Historically, agencies throughout the nation have used a variety of weak process measures (e.g., response time) and outcome proxies (e.g., number of first successful IV sticks/intubations, and compliance to established protocol), in lieu of being able to report true outcome statistics (e.g., cardiac arrest patient survival to discharge, neurologically intact).

[10] The California Emergency Medical Services Information System (CEMSIS) is a demonstration project for improving EMS data across California. CEMSIS offers a secure, centralized data system for collecting data about individual emergency medical service requests, patients treated at hospitals, and EMS provider organizations.

Efforts to move from process measures to more meaningful benchmarking involves establishing strict definitions for quality metrics, a database and the infrastructure for programs to track, report, and analyze a service's performance by comparing it to other programs. Accrediting agencies such as CAMTS[11] are beginning to require the use of the Ground and Air Medical Quality Transport (GAMUT) database as part of the accreditation process in lieu of being able to report full outcome data. The 27 GAMUT measures are provided in Attachment D.

It serves as an example of ways the County and its providers could prepare for a shift toward outcome-based measures and how expanded measurements within each agency can be enhanced. The requirements for measurement and reporting Quality Improvement (QI) metrics should be finitely defined in any specifications or future service agreements.

Consistent Investment In Technology – A Requirement to Facilitate Future EMS System Enhancements

Efforts to "measure what matters" have accelerated significantly with the widespread use of Electronic Patient Care Reporting (ePCR) systems. Software to facilitate 100% review of call taker, dispatcher, first responder and transport caregivers' actions are commonly utilized by sophisticated systems to guide medical quality improvement efforts. These include commercially available products such as Academy Analytics, FirstWatch/FirstPass, ESO and Acuity Link. Brief descriptions of each product are provided below. [12]

- **Academy Analytics** powered by FirstWatch is the result of a collaboration between the International Academies of Emergency Dispatch and FirstWatch to provide near-real-time web-based dashboards and analytics for ProQA users.

- **FirstWatch** turns raw data into meaningful information, helping agencies improve situational awareness, operational performance and clinical patient outcomes. FirstWatch does this by securely capturing, translating and

[11] The Commission on Accreditation of Medical Transport Systems is an independent, non-profit agency which audits and accredits fixed-wing, rotary wing, and surface medical transport services worldwide to a set of industry-established criteria.

[12] Software products listed are for illustration only. *FITCH* owns no stock in any software entities nor endorses any specific products.

transmitting information about their 911 callers, patients and systems via FirstWatch triggers, all in real-time.

- **FirstPass** is a clinical quality measurement and protocol monitoring tool designed to alert users to deviations in expected treatments to medical protocols. FirstPass provides continuous monitoring of ePCR and other data to quickly identify and provide real-time alerts related to protocol deviations, incomplete "care bundles" (which include scientifically validated patient care protocols), missing data elements or urgent patient safety issues.

- **The ESO Suite** is designed to facilitate bidirectional data sharing with EMS. It can perform comparative analysis of hospital and EMS data, increase operational efficiency, measure and improve patient outcomes. Its Health Data Exchange module provides a secure, auditable method of data sharing to support operational and quality process needs. ESO recently acquired Firehouse software.

- **Acuity Link** is a best practice logistics management solution that automates communication and transport requests for healthcare systems and medical transportation providers. It optimizes patient flow within the hospital with non-emergency medical transportation logistics – achieving shortened discharge times, reduced patient length of stay, and streamlined patient flow while improving patient care and experience. Acuity Link provides an end-to-end automated IFT request platform through its technology integrations with the leading Electronic Health Records (EHR) and Computer Aided Dispatch (CAD) vendors.

Future oriented approaches currently known to be in development utilize artificial intelligence (AI). One such product is Corti, an augmentation platform for emergency dispatchers that's presently in use in the Copenhagen EMS communications center in Denmark. Corti helps the call-taker come to fast and precise conclusions by finding patterns in the caller's description of what's going on. Corti can do this because it can process audio 70 times faster than real time, allowing for advanced live computations.

While Santa Barbara County cannot be expected to fully anticipate the future technologies that may support improved outcomes, the experience of other best practice EMS systems is that a dedicated investment fund is required to facilitate the purchase and implementation of advanced technology on an ongoing basis.

Phase 2: System Enhancement Goals and Solution Initiatives

The Phase 1 EMS System Review report that was delivered to the County in August 2018, included more than 30 findings that were a combination of positive attributes, system data trends and areas that require focused change. The findings were organized under the following topics:

- Operations and Service Demands
- Dispatch and System Interoperability
- Mental Health and Substance Abuse Patients
- Personnel Recruitment, Retention and Clinical Quality
- System Finances

In order to distill the findings into specific system enhancement goals, SBCEMSA developed and distributed a survey to Phase 1 participants that asked them to rank the findings in order of importance and/or those that most impacted the system. Some findings, such as those regarding mental health patients, appeared in several sections and were merged together to avoid duplication.

Four major topic areas emerged from the survey results and were augmented with issues specifically identified by the Fire Chiefs Association. The focus of the Phase 2 discussions was on identifying the problems and issues related to the four meeting topics and offering potential solutions. Ideas were captured in a brainstorming process and later provided to participants to review, edit and/or to add to the information.[13]

Based on the stakeholder input, *FITCH* was then tasked with creating an implementation and timeline plan as the deliverable for Phase 2 and Phase 3. For that process, the County pointed to the Triple Aim goals as the framework for further development of the solution initiatives. The four goals that emerged from Phase 2 stakeholder meetings, along with specific solution initiatives follow in this section.

The Santa Barbara County EMS System must adapt to the unprecedented changes that will occur in EMS systems throughout California during the next 10 years, including changes in EMS system financing and reimbursement, clinical scopes of practice based on research and outcomes, and increasing call volume. To accomplish these tasks and implement the enhancement goals outlined, will require additional SBCEMSA staffing resources, collaboration between stakeholders, engagement in working teams/task groups and timely decisions.

[13] Only AMR provided feedback primarily in the area of clarification of current operations.

Goal 1: Improve Coordination/Management of Interfacility Transfer (IFT) System

Establish an IFT system that is coordinated across health care providers so that it does not conflict with or inadvertently pull resources from the 911 response system.

Stakeholder Issues

- There is no coordination of requests for IFTs between facilities.
- Requests for an IFT are frequently prioritized at a higher level than medically necessary.
- IFTs often involve long duration transports particularly for mental health patients, which overburdens and can impact 911 capacity.
- Critical Care, bariatric, pediatric, high flow oxygen and other special needs transport resources are limited due to low volume and cost.
- IFT quality assurance/quality improvement metrics are not shared or coordinated within the system.
- Risk versus appropriateness of various transport modes should be analyzed.

Stakeholder Solution Initiatives

- Allow transport providers the option to transport low acuity interfacility patients using various staffing and vehicle configurations appropriate to the patient's needs.
- Establish a County-wide IFT transfer position with the authority to coordinate across hospitals, other patient receiving facilities and with transport providers regarding available beds, ED closures, medical necessity, etc.
- Determine the need for Critical Care and other specialty care transports and the cost to provide constant staffing for same.

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
OBJECTIVE 1.1				
1.1 Amend current response and transport regulations, transport agreement or RFP specifications to allow for alternative staffing and vehicles in ensuring medical necessity, patient and crew safety.	Develop and approve protocols to include appropriate utilization of low acuity IFT transport units.	SBCEMSA and Transport Provider Medical Directors	Protocols published	Six months
	Delineate performance requirements for transport provider for medically-necessary emergent IFT transports, as established by protocol.		Protocols published	
	Delineate performance requirements for transport provider for peak IFT transports between the		Protocols published	

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
	hours of 8:30 am – 6:00 pm, Monday through Friday. Delineate performance requirements for transport provider for off-peak IFT transports, outside the hours noted above. Implement amended agreement provisions.		Protocols published Increased compliance to protocol. Increased appropriate Utilization of resources for IFT.	
OBJECTIVE 1.2				
1.2 Implement an IFT transport coordination center to serve the entire system.	Determine through data analysis, which and how often physicians/facilities do not follow medical necessity protocol (over use of Priority One) for IFT requests. Assess available technology to facilitate requests and management of IFTs, determine funding participation and procure software. Determine lead agency to facilitate coordination activities. Develop common protocols, early notification systems and medical necessity definitions regarding IFT prioritization of requests. Develop systemic quality improvement metrics for IFTs.	Hospitals, Transport Provider, County Budget and Procurement, SBCEMSA	Analysis completed. Identify and review available software / technology that manages IFTs. Complete Agreement with the agency to be the coordinating entity. Procure and install software. Metrics approved, implemented and reported by SBCEMSA. Transport coordination reduces wait times for IFTs.	12 months

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
	Communicate compliance and QI findings throughout the system.			
OBJECTIVE 1.3				
1.3 Determine issues regarding system surge capacity.	Analyze system data to determine the time of day, day of week, frequency, duration and number of simultaneous calls, and response time performance that occurred during Level Zero ambulance status. Determine any needed adjustments to ambulance provider operations and/or agreement language. Submit changes to SBCEMSA for consideration and inclusion in agreement/RFP specifications.	SBCEMSA, Dispatch sources, Transport Provider and County Stakeholder representative	Determination regarding impact of Level Zero and remedy, if needed. If needed, incorporation of changes regarding Level Zero in agreement or RFP specifications.	6 months
OBJECTIVE 1.4				
1.4 Determine whether CCT and specialty transports need to be more available to the system.	Designate an analysis team to gather data and discuss the system issues and needs. Determine the magnitude of risk from unfilled requests for CCT and other specialty care transports. Determine the alternative transport modes currently used when specialty transports are not available. Determine the risks, benefits and costs to establish and fund consistent or more hours of staffing for specialty transports. Determine which system participant(s) would pay	SBCEMSA, Hospitals, CALSTAR, Medical Directors, Financial Stakeholders	Summary of Risk Assessment completed and distributed for stakeholder comment. If needed, funding for additional staff availability and decisions as to which	12 months

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
	for additional CCT staff hours.		system participant(s) would fund additional services.	

Goal 2: Improve Coordination/Management of EMS for Mental Health Patients

Provide mental health patients with more appropriate and coordinated responses to emergencies; solutions should mitigate adverse impacts to EMS resource capacity.

Stakeholder Issues

- Mental health transports (5150s) experience an over representation of substance abuse and homeless patients.
- Limited local sobering centers, mental health facilities centers, shelter beds and limited extended hours of outpatient facilities result in long out of county transports that put crew and patient safety at risk.
- In some cases, patients resist intervention; in other cases, voluntary admits become the responsibility of EMS.
- Few transport mode options for transport provider.
- Receiving facilities exacerbate issues by delays, inappropriate holds or refusing to take patients.
- A burden for law enforcement and EMS and confusion as to when law enforcement vs. EMS is responsible.
- Overall an impact on 911 system and transportation capacity.
- First responders need special training regarding handling mental health patients.

Stakeholder Solution Initiatives

- Determine a maximum transport distance or total transport duration for 5150 transports to ensure safety of providers and patients.
- Expand the use of "safety cars" and other transport modes for mental health transports.
- Consider a County operated crisis team to transport 5150s to local facilities.
- Designate a single liaison point between EMS and behavioral services for mental health transport patients.
- Fund an in-county crisis center for adolescents.

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
OBJECTIVE 2.1				
2.1 Convene a multidisciplinary task force consisting of EMS, the Public Health Department, law enforcement, ambulance providers, receiving facilities and other interested stakeholders to revise the	Describe existing resources/capacity, analyze data, develop revised plan.	SBCEMSA, Public Health Department, law enforcement, ambulance providers, receiving facilities and	Language to be incorporated into renegotiation or specification process.	12 months

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
EMS system's response protocol for behavioral health patients.		other interested stakeholders		
OBJECTIVE 2.2				
2.2 Determine feasibility of awarding a separate agreement for longer distance/duration 5150 mental health transports.	Analyze data to determine the number, frequency, duration and distance for out-of-county 5150 transports in the past 12 months. Designate a 5150 working group of transport providers, and field personnel to determine a reasonable distance to transport mental health patients that considers the negative impact on system capacity, crew and patient safety. Determine whether the system may need to separately subsidize long distance/duration transports.	SBCEMSA, County Administration, Purchasing	Amend current and future agreements as needed depending on outcome of discussions and associated tasks.	12 months
OBJECTIVE 2.3				
2.3 Determine law enforcement's current role in transporting 5150 patients.	Analyze law enforcement data to determine number, frequency, and destination of law enforcement 5150 transports. Determine law enforcements' future role regarding 5150 transports.	Transport provider, law enforcement and SBCEMSA.	Amend current and future agreements as needed depending on outcome of discussions.	12 months
OBJECTIVE 2.4				
2.4 Expand the use of "safety cars" and/or other vehicles for 5150 transports.	Designate working group of ambulance transport provider, behavioral health, law enforcement, hospitals and system Medical Directors to explore alternative staffing, vehicles and funding for 5150 transports.	Transport provider, law enforcement and SBCEMSA	System-wide consensus on which provider(s) and in what vehicles 5150 transports will be accomplished.	12 months
OBJECTIVE 2.5				
2.5 Designate a single liaison point between EMS and behavioral services.	Determine (FTE or collateral assignment) staffing requirements, fiscal requirements,	SBCEMSA, Public Health Department, Transport Provider	Implementation of liaison position, improved coordination of EMS behavioral health efforts.	12 months

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
	development of job description / activities. Revisit Mental Health Assistance Team that had been temporarily implemented several years past.			
OBJECTIVE 2.6				
2.6 Consider staffing a specialty crisis team to transport 5150 patients.	Task the 5150 working group with reviewing the viability of establishing and funding a specialty crisis response team.	SBCEMSA	Completion of analysis re: composition and costs for a specialty crisis team to include scope, training, vehicles, response parameters, etc. Incorporation into revised agreement /or RFP specifications.	12 months
OBJECTIVE 2.7				
2.7 Designate / build and staff a teen crisis center.	Designate an interdisciplinary team across the allied behavioral services agencies to review the feasibility in terms of need, physical facilities, staffing and funding for a teen crisis center.	SBCEMSA, allied health agencies	Submission of report to Public Health Director.	24 months

Goal 3: Provide Appropriate Flexible Access to Treatment for Aging and At Risk Populations

Provide aging and at risk populations, as well as the population at large, with flexible access to out-of-hospital care and/or transport to alternative facilities for low acuity events and discharge follow-up.

Stakeholder Issues

- Providers respond multiple times to individuals who do not require paramedic level intervention.
- Individuals with alcohol and substance abuse issues frequently overuse the 911 system.
- Care facilities call 911 for lift assistance when there is no medical necessity; this pulls resources from the 911 system.
- Overall the system needs to focus resources on acute needs to be more efficient and reserve resources for the 911 system.

Stakeholder Solution Initiatives

- Identify the 50 most frequent users of the 911 system and focus various resources to intervene and potentially mitigate their issues.
- Establish an accredited Nurse Health Phone Line to triage and support appropriate responses to low acuity 911 calls.
- Establish an alternative destination facilities system plan for transport and treatment of low acuity 911 patients.
- Establish a Community Paramedicine Program (CPP) to allow alternative response modes to low acuity calls, on-scene patient treatment without transport, patient discharge follow-up visits to include home safety checks.
- Analyze data to identify resource allocation that is going to non-medically necessary lift assist requests.

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
OBJECTIVE 3.1				
3.1 Identify and develop alternate treatment plans for 50 most frequent users of the 911 system.	Determine the 50 most frequent users of the 911 system using CAD data analysis. Designate a working group of Medical Directors and Behavioral Health to determine the primary needs of these patients that may be better suited to home health care or other social services, including a referral criteria and protocol.	Behavioral Health, Law Enforcement, Transport Provider, SBCEMSA	Reduction in 911 requests from system most frequent users.	12 months

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
	Determine mechanism to conduct in home interviews with these patients to perform safety checks, connect them to social services and as appropriate, educate them about ways other than 911 to get help. If success criteria met, revise system protocols to determine long term intervention process.	SBCEMSA and First Response Agencies	Increased referrals to appropriate agencies	
OBJECTIVE 3.2				
3.2 Consider implementation of a Nurse Health Phone Line to receive from 911, the low acuity "Omega" calls that are deemed appropriate to further triage.	Research successful Nurse Health Phone Lines and Emergency Communications Nurse programs in other systems. Determine whether SBC PSAPs meet the requirements for a Nurse Health Phone Line. Gain agreement among jurisdictions and Medical Directors regarding calls that will be transferred to Nurse Phone line. Convene a task group to determine the allowable under current state regulations for non-911 services that would be appropriate for low acuity patients. Determine fiscal impacts and potential reimbursement available under ET3. Begin work on draft protocols regarding alternative transport modes and destinations for low acuity patients that will be in draft form pending changes in state and local regulations.	SBCEMSA, System Medical Directors, PSAPs and , existing nurse call centers	Summary of Analysis Feasibility Assessment Draft protocols developed.	Dependent upon medical dispatch enhancements

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
OBJECTIVE 3.3				
3.3 Reduce utilization of EMS Transport services to perform "lift assists" at long term and other care facilities.	Analyze data to determine the frequency and which care facilities regularly request 911 response for a non-medical related patient lift assist. Communicate directly with facilities to advise the impact on the 911 system. Consider a fine system similar to false alarms for repeat offender facilities. Develop ordinances/regulations.	SBCEMSA and first response (fire) agencies	Reduction of 911 requests for lift assists at long term care facilities.	12 months
OBJECTIVE 3.4				
3.4 Designate working group to research existing alternative destination plans and ET3 feasibility.	Assess the current status of the SBCEMS system and health care infrastructure re: alternate destinations. Prepare a facilities plan of various receiving facilities categorized by their ability and capacity to handle various patient needs. Conduct ET3 feasibility study. Monitor legislative and regulatory changes regrading 911 patient destinations. Develop language in provider agreement to facilitate alternate destinations as approved by legislative and regulatory changes.	SBCEMSA, hospitals, urgent care centers, transport provider, first response agencies	Summary of analysis. Completion of "draft ET3 application" in anticipation of legislative and regulatory changes.	18 months
OBJECTIVE 3.5				
3.5 Research existing community paramedicine programs and review with system stakeholders in anticipation of enabling legislation.	Lay the groundwork for a CP program with stakeholders, elected officials and the public. Research the system needs, particularly in PSAPs in order to implement CPP at a later date.	SBCEMSA and Medical Director(s) for transport provider and first response agencies	Research complete and draft language developed for renegotiation or specifications.	18 months

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
	Work with local aging institutes and wellness organizations to create an outreach program aimed at educating the aging population on the enhancement of health and appropriate activation of the 911 system. Fiscal impacts determined. Develop language in provider agreement to facilitate alternate destinations as approved by legislative and regulatory changes.			

Goal 4: Improve Quality Metrics System-Wide

Develop system-wide metrics to define the problems identified in Phase 2, support the accomplishment of the broad solution initiatives described and provide for overall system quality improvement. Metrics are to include but are not limited to data regarding dispatch centers, BLS and ALS first responder agencies and transport provider agencies.

Stakeholder Issues

- Review the method of determining transport provider(s) response time compliance.
- Response time compliance should be modified to align with patient acuity.
- Make sure all clocks across the system are synchronized and all use the same definitions for response intervals.
- Emphasize patient outcomes over response time metrics.
- Expand metrics to focus on mental health patients specifically the number and percent that are adolescents, homeless or substance abuse patients.

Solution Initiatives

- Continue to report on and expand current clinical quality metrics.
- Expand system quality metrics to include protocol adherence and outcome measures for Public Safety Answering Points (PSAPs), Basic Life Support (BLS) and Advanced Life Support (ALS) fire departments, and transport providers for 911 and IFT activities.
- Develop metrics regarding patients and crew safety.
- Create a "real-time" mechanism such as a dashboard portal to share reports with the entire system.
- Conduct patient surveys, using an independent entity, regarding patient experiences with first responders and ambulance providers.
- Conduct field personnel surveys, using an independent entity, regarding interactions between fire, ambulance and hospital emergency department personnel.
- Conduct system personnel surveys, using an independent entity, regarding their experience with the system as a whole.
- Report key system performance metrics to stakeholders, community leaders and public more than once a year.
- Analyze on an ongoing basis, the trends in age ranges and other details concerning mental health patients accessing the 911 system.

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
OBJECTIVE 4.1				
4.1 Increase EMS medical direction and quality improvement capability commensurate with EMS system scope to facilitate current and expanded metrics reporting.	Determine mechanisms to increase interactions with and accountability to Office of Medical Director. Determine (FTE or collateral assignment) staffing required, fiscal requirements, development of expanded job description/activities. Consider provider supplied staffing for office of medical director under renegotiated agreement or specifications. Implement learning management system to share metrics and facilitate in-station development activities.	SBCEMSA, Medical Director, transport provider, first response agencies	Increased interactions of Medical Director and providers. Implementation of Learning management system.	Commensurate with new provider agreement
OBJECTIVE 4.2				
4.2 Using GAMUT and/or other clinical outcome tools as a guide to determine applicable metrics to be measured.	Solicit expanded measures from known high performance systems and credentialing organizations. Agree on expanded data points to be used to monitor individual clinician and agency performance. Determine review and reporting mechanisms and intervals. Use expanded clinical performance data to reshape training and EMS practice parameters.	Medical Director, SBCEMSA	Specified criteria measured and EMS system data reported quarterly to stakeholders and the public, as allowed by law. Practice parameters and training adapted based upon evidence and performance date.	12 months Commensurate with new provider agreement
OBJECTIVE 4.3				
4.3 Determine data sources for development of metrics regarding	Analysis of existing data sources and plan for	Medical Directors and SBCEMSA	Practice parameters and training adapted based	6 months

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
adherence to protocols for all responders in the system.	electronic integration of key data elements. Medical Directors to guide monitoring protocol adherence for trending issues that result in training emphasis.		upon evidence and performance date.	
OBJECTIVE 4.4				
4.4 Convene working group to include crew representatives, to complete recommendations regarding specific metrics to be measured or safety issues for patients, first responders and transport personnel.	Submit recommended safety metrics to be monitored to working group for determination of final metrics to be reported and mechanism for reporting.	SBCEMSA, Transport Providers, First Response Agencies	Practice parameters and training adapted based upon evidence and performance date.	6 months
OBJECTIVE 4.5				
4.5 Select a software platform to share real-time metrics system-wide.	Review industry specific products currently in the market to capture and share metrics. Determine meaningful real-time metrics for system monitoring. Develop specifications and conduct procurement for the provision of these services.	SBCEMSA County purchasing	Implementation of system to share performance data.	12 months
OBJECTIVE 4.6				
4.6 Survey, using an independent entity, various stakeholder groups to determine service perceptions and facilitate benchmarking.	Review industry specific products currently in the market to independently conduct surveys. Determine final survey tool questions. Implement statistically significant sampling using an electronic patient care survey regarding customers' experience	SBCEMSA, Transport Providers, First Response Agencies	Survey conducted at least annually and benchmark results reported to Public Health Director. Improvement of key elements identified as issues/deficits in customer surveys.	Commensurate with new provider agreement

Objectives	Tasks/Deliverables	Resources	Success Criteria	Timeline
	with first responders and ambulance providers. Survey fire, ambulance and ED personnel, regarding interactions between agencies.			
OBJECTIVE 4.7				
4.7 Increase community engagement/awareness of EMS performance metrics.	SBCEMSA to develop concise reports that are made available to stakeholders monthly and to the public two to four times a year (including dispatch, operations and clinical performance, financial performance, patient experience data and system outreach activities). Publish summaries on website and generate a written report findings to Board of Supervisors not less than quarterly.	SBCEMSA	Stakeholder reports published monthly.	6 months

ATTACHMENT A

Summary Phase 1 Observations and Actionable Items

FITCH
& ASSOCIATES

Attachment A

Summary Listing of Santa Barbara County EMS System Phase 1 Report

Observations and Actionable Items

1. **Operations & Service Demands**
    a. ALS staffing constraint limits ability to utilize BLS ambulances in the system for IFT patient movement
    b. Need to prepare for the anticipated growth in EMS demand, driven by 65+ age cohort
    c. Exploring benefits and viability of Community Paramedicine in Santa Barbara
    d. BLS Agencies feel underrepresented and efforts are unrecognized
    e. Ambulance and ALS Fire agreements have inconsistent standards and in some cases are over 25 years old
    f. Lack of coordination on public education and injury/illness prevention (e.g. Hands Only CPR)
    g. Hospitals determine IFT priority level, which was reported as abused to move patients faster
    h. The SBCEMSA does not routinely visit field providers or sites
    i. Lack of public education on publicly accessible AED's

2. **System Interoperability**
    a. Lack of tiered dispatch across the County of Santa Barbara (Code 3 to low acuity calls)
    b. Data mining challenges, related to Dispatch and ImageTrend
    c. Deployment plans are not shared between agencies
    d. Allied EMS Providers (Parks Dept, Harbor Patrol, etc.) not well integrated into the EMS System

3. **Mental Health & Substance Abuse Patients**
    a. "Coordination of resources is absent…" as it relates to vulnerable patients, such as mental health and homeless
    b. 5150 Transports take resources out of County for protracted periods of time
    c. "Services for vulnerable populations… are fragmented."
    d. 2-1-1 or similar services may be underutilized
    e. General lack of non-acute, non-emergency patient referral program
    f. Limited in-County mental health and/or substance abuse facilities

4. **Personnel Retention, Recruitment & Clinical Quality**
    a. Providers have limited interaction with SBCEMSA Medical Director
    b. Paramedic skills retention concerns from Medical Directors group; skills frequency is not tracked for review
    c. "A more comprehensive approach to QI/QA is needed to advance efforts to achieve the clinical and patient satisfaction goals of the Triple Aim."
    d. "There is no one independent entity such as SBCEMSA that receives, logs and follows up on patient, customer and crew complaints across all agencies"
    e. Current Transport Provider's periodic staffing challenges
    f. CQI Committee is limited in scope; could be more proactive than reactive

g. The EMS Agency is limited in growth opportunities due to limited staffing
h. "Quality assurance reporting is primarily handled by each individual agency"
i. "Agreements could be improved emphasizing aspects of clinical program participation."
j. Specialty Care systems could be expanded with additional staffing
k. No learning management system for BLS providers

5. System Finances

a. EMS revenue limited by EMS transport volume
b. High ambulance user fees
c. Current agreement contains "inconsistent application of inflation factors for the Transport Provider versus First Responder agencies."
d. Exploration of GEMT, IGT and QAF Funding

ATTACHMENT B

Agency Participants in Santa Barbara EMS System Review Phase 1 and 2 Stakeholder Meetings

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Attachment B
Agency Participants in Santa Barbara EMS System Review
Phase 1 and 2 Stakeholder Meetigns

American Medical Response
California Highway Patrol
CALSTAR Air Medical Services
Carpinteria/Summerland Fire Protection District
Casa Pacifica
City of Goleta
City of Lompoc
City of Santa Barbara
Santa Barbara County Executive Office
Doctors Without Walls
Guadalupe Fire Department
Hospital Association of Southern California
IAFF Local 1906
IAFF Local 2046
International Association of EMTs and Paramedics
Lompoc Fire Department
Lompoc Police Department
Montecito Fire Protection District
Office of County Supervisor Janet Wolf
Santa Barbara City Fire Department
Santa Barbara City Harbor Patrol
Santa Barbara City Police Department
Santa Barbara Cottage Hospital
Santa Barbara County Behavioral Wellness Department
Santa Barbara County EMS Agency
Santa Barbara County EMS Medical Director Committee
Santa Barbara County Fire Department
Santa Barbara County Parks Department
Santa Barbara County Public Health Department
Santa Barbara County Sheriff's Behavioral Sciences Unit
Santa Barbara County Sheriff's Department
Santa Barbara County Sheriff's Search and Rescue
Santa Barbara Fire Chief's Association
Santa Maria City Fire Department
Santa Maria Police Department
Santa Ynez Valley Cottage Hospital
United Way

ATTACHMENT C

CMS Treat, Triage and Transport (ET3) Program Application

FITCH
& ASSOCIATES

Centers for Medicare & Medicaid Services
Center for Medicare and Medicaid Innovation
Prevention and Population Health Group

Emergency Triage, Treat, and Transport Model (ET3)

Request for Applications (RFA)

Last Modified: 05/28/2019

Emergency Triage, Treat, and Transport (ET3) Model
Request for Applications

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I. ET3 MODEL OVERVIEW

A. Background and Scope

The Emergency Triage, Treat, and Transport (ET3) Model is a voluntary, five-year payment model that will provide greater flexibility to ambulance care teams to address emergency health care needs of Medicare Fee-for-Service (FFS) beneficiaries following a 911 call. Medicare currently pays for emergency ground ambulance services only when beneficiaries are transported to a limited number of covered destinations.[1] This creates a perverse incentive to bring beneficiaries to high-acuity, high-cost settings (e.g., hospital emergency departments (EDs)), even when a lower-acuity, lower-cost setting may more appropriately meet an individual's needs. A payment model that corrects these misaligned incentives has the potential to improve the quality of care and lower costs to Medicare by reducing avoidable transports to the hospital ED and potentially reducing avoidable inpatient admissions.

Model Participants will be Medicare-enrolled ambulance suppliers or hospital-based ambulance providers selected based on criteria set forth in this Request for Applications (RFA). The ET3 Model will test two new Medicare payments to Participants: 1) Payment for ambulance transport[2] of Medicare FFS beneficiaries to alternative destinations not currently covered by Medicare; and, 2) Payment for treatment in place where appropriate, rendered by a qualified health care practitioner at the scene of a 911 emergency response or via telehealth. In both cases, the goal is to avert an unnecessary transport to the hospital. Payments may be tied to performance on key quality measures designed to hold Participants accountable for the quality of model interventions no earlier than Year 3 of the model performance period. Participants will partner with alternative destination sites and/or Medicare-enrolled qualified health care practitioners, depending on which model interventions they seek to implement.

Although ET3 is a Medicare payment model, the Innovation Center acknowledges that Participants that are able to implement the model interventions across multiple payers will be in the best position to achieve ET3's cost and quality goals. Therefore, each Applicant must describe its strategy for engaging other payers in its proposed service area, or explain how it would successfully implement the model for Medicare FFS beneficiaries only. In support of the Center for Medicare and Medicaid Innovation (Innovation Center) goal of incentivizing multi-payer alignment in the ambulance services sector, and in recognition of Medicaid's role as a driver for state-based innovation in the unscheduled, emergency ambulance sector, the ET3 Model Learning System (see Section V, Learning System Activities) will provide targeted activities to state Medicaid programs to address barriers to payment development and implementation.

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[1] 42 C.F.R. § 410.40(e). Medicare covers medically necessary ambulance transportation to a range of locations, including high-acuity settings such as emergency departments, which are the most likely destinations for beneficiaries experiencing a medical emergency. The regulation also permits coverage of medically necessary transport from a hospital, Critical Access Hospital (CAH), or Skilled Nursing Facility (SNF) to the beneficiary's home; from a SNF to the nearest supplier of medically necessary services not available at the SNF where the beneficiary is a resident, including the return trip; and, for a beneficiary who is receiving renal dialysis for treatment of end-stage renal disease, from the beneficiary's home to the nearest facility that furnishes renal dialysis, including the return trip.

[22] In order to be eligible for model payments, vehicles used during ET3 interventions should adhere to the requirements set forth in 42 C.F.R. § 410.41(a).

B. Application Timelines and Anticipated Funding Opportunity

This RFA is the first of up to three potential RFAs through which Applicants may be selected to participate in the ET3 Model. Through the first two RFAs, CMS may select enough Participants to capture up to 30% of Medicare FFS emergency ground ambulance transports. Additional RFA rounds will be considered based on availability of funding and evidence that the model is working as intended. Table 1 summarizes the expected timelines for Round 1 application, selection, and performance for ET3 Model Participants, although the actual timelines may vary. Additional application rounds may be scheduled, but are not guaranteed.

Table 1. ET3 Model Round 1 Application Timeline

Milestone	Timeline
RFA Released	**Spring 2019**
RFA Application Submission Period	**Summer 2019**
Participants Selected	**Fall 2019**
Performance Start	**January 2020**
Performance End	**December 2024**

Separately from the RFA process, the Innovation Center expects to allocate cooperative agreement funding to support successful implementation of a medical triage line integrated into the 911 dispatch system(s) in an eligible region. In addition to limiting inappropriate initiation of ambulance services, successful implementation of a medical triage line can increase efficiency in EMS systems where Participants operate, including by allowing for faster emergency response to the most time-sensitive cases. Local governments, their designees, or other entities that operate or have authority over a 911 dispatch system in regions in which Participants operate may be eligible to apply for cooperative agreement funding. A Notice of Funding Opportunity (NOFO) announcement is expected to be released following the first round of Participant selection. In the event that there is more than one round of Participant selection, CMS may release a second NOFO announcement following the second round of Participant selection, pending availability of funds. No more than two NOFOs are expected to be published for the ET3 Model.

C. Authority

Section 1115A of the Social Security Act (the Act) authorizes the Innovation Center to test innovative payment and service delivery models to reduce Medicare, Medicaid, and CHIP expenditures while preserving or enhancing the quality of care furnished to program beneficiaries.

D. ET3 Model Goals and Framework

ET3 is a Medicare payment model test that aims to:

- **Provide person-centered care**, such that beneficiaries receive the appropriate level of care delivered safely at the right time and place while having greater control of their health care through the availability of more options.
- **Encourage appropriate utilization of services** to meet health care needs effectively.
- **Increase efficiency in the EMS system** to allow for more rapid response to time-sensitive conditions.

The ET3 Model is designed around three core features to ensure that payment innovations achieve these goals:

1. *Payments for emergency medical services (EMS) innovations.* ET3 Participants will be eligible for payments for 1) transporting Medicare FFS beneficiaries to alternative destinations approved in advance by CMS; and, 2) facilitating appropriate treatment in place at the scene of a 911 emergency response or via telehealth. Participants who demonstrate high quality of care based on performance metrics described in this RFA and finalized in the Model Participant Agreement may be eligible for a performance-based payment adjustment beginning no sooner than Year 3 of the model. The model does not alter coverage or payment for Part B ambulance services that are not provided in connection with this model. A beneficiary who is eligible for the interventions available under the ET3 Model may elect to receive an intervention or may choose to be transported to a covered destination pursuant to existing state and local EMS protocols and Medicare requirements. All non-ambulance services furnished to ET3 Model beneficiaries will be furnished by Medicare-enrolled providers and suppliers, such as the alternative destination sites and qualified health care practitioners discussed below, who have been vetted and approved in advance by CMS to promote beneficiary safety and reduce program integrity risks.

2. *Multi-payer participation.* Participants will be chosen in part based on their ability to implement the ET3 Model interventions within the context of a multi-payer environment. In their responses to this RFA, each Applicant must set forth a feasible multi-payer alignment strategy within the context of its proposed plan for implementing the model interventions; or, explain how the Applicant would successfully implement the model interventions for Medicare FFS beneficiaries only. (See Section VIII, Selection Criteria).

3. *Enhanced monitoring and enforcement.* Although most instances of fraud and abuse in the ambulance sector take place within the context of scheduled or unscheduled non-emergency ambulance transport, the Innovation Center acknowledges that the ET3 Model will require robust monitoring and enforcement to ensure that payment and services are consistent with applicable coverage policies.

In total, these innovations will help ensure Medicare FFS beneficiaries have access to a fuller scope of ambulance services, expend fewer out-of-pocket costs by facilitating lower-cost treatment in lower-acuity settings, and receive the most appropriate level of care at the right time and place.

II. MODEL DESCRIPTION

A. Model Overview

A Participant in the ET3 Model may offer up to three options when responding to a 911 call placed by or on behalf of a Medicare FFS beneficiary. First, a Participant may transport the beneficiary to a covered destination that is currently allowed under Medicare regulations (e.g., a hospital ED).[3] In the event that a Participant responds to a 911 call and determines that a beneficiary may be safely treated at a lower-acuity alternative destination, or safely treated in place at the scene of the 911 emergency response, the Participant may also offer the following model interventions: 1) transport the beneficiary to an alternative destination; or 2) initiate and facilitate treatment in place by a qualified health care practitioner either in-person on the scene of the 911 emergency response or via telehealth. At a

[3] 42 C.F.R. §410.40(e), Coverage of Ambulance Services, Origin and destination requirements.

minimum, all Participants must agree to implement the alternative destination transport intervention. Each Applicant must identify in its response to this RFA whether it intends to implement the treatment in place intervention. An Applicant that proposes to implement the optional treatment in place intervention has the opportunity to earn additional points towards its overall application score.

Participants must partner with alternative destination sites, which must be enrolled in Medicare or employ or contract with Medicare-enrolled practitioners, and which must be able to accept and furnish services to Medicare FFS beneficiaries who are transported to these sites. An alternative destination site must have the capacity to meet the needs of Medicare FFS beneficiaries who are transported to the site through the model. Participants that propose to implement the treatment in place intervention must partner with Medicare-enrolled qualified health care practitioners to furnish services, which can be provided either in-person on the scene of the 911 response or via telehealth. Each Participant must ensure that at least one of the non-ED options is available at all times. This may require partnering with alternative destination site(s) or qualified health care practitioner(s) that can ensure availability of services for ET3 Model beneficiaries 24 hours per day, seven days per week, but a Participant need not guarantee the availability of a specific site at all times. Each Applicant must identify a plan for ensuring real-time availability of an alternative destination site for a particular beneficiary prior to transporting that beneficiary to a site.

B. Key Model Features: Region, Participants, and Non-Participant Partners

i. Model Region

Each Applicant must identify the region in which it proposes to implement the model. A proposed model region should be a county or equivalent entity, or multiple counties or equivalent entities, where the Applicant currently provides, and expects to continue to provide for the duration of the model performance period, Medicare-covered emergency ambulance services to Medicare FFS beneficiaries.

In order to be eligible to participate in the ET3 Model, an Applicant must propose a model region located in a state or states where at least 15,000 Medicare FFS emergency ambulance transports occurred in the 2017 calendar year. If an Applicant proposes a region that includes more than one state, each state must be one in which at least 15,000 Medicare FFS emergency ambulance transports took place during the 2017 calendar year. Applicants should refer to Appendix D, *Medicare FFS Emergency Transport Volume by State and County or County-Equivalent Entity,* to determine whether their proposed region is located in a state or states that meet this 15,000 transport volume threshold. An Applicant that proposes to implement the model in any state that did not meet this 15,000 transport volume threshold, notwithstanding its response to other application requirements, will not be eligible to participate in the ET3 Model.

Although a region may be comprised of multiple counties or equivalent entities, preference will be given to Applicants who propose a region that includes at least one county (or county-equivalent) where at least 7,500 Medicare FFS emergency ambulance transports occurred in the 2017 calendar year. Applicants should refer to Appendix D to determine whether their proposed region includes a county or equivalent entity that meets this threshold.

ii. Participants

Medicare-enrolled ambulance suppliers or hospital-based ambulance providers are eligible to apply to participate in the ET3 Model.

iii. Non-Participant Partners

All Participants must partner with alternative destination sites, and those that seek to implement the treatment in place intervention must partner with Medicare-enrolled qualified health care practitioners. These alternative destination sites and Medicare-enrolled qualified health care practitioners are referred to as "Non-Participant Partners." Non-Participant Partners will furnish non-ambulance services to Medicare FFS beneficiaries through the model. For the alternative destination transport intervention, a Participant may partner with alternative destination sites that include: a Medicare-enrolled institutional provider; a group practice that includes Medicare-enrolled qualified health care practitioners; a solo practitioner; or, a non-Medicare-enrolled entity that employs or contracts with Medicare-enrolled qualified health care practitioners that can furnish covered services to Medicare FFS beneficiaries ("downstream practitioners"). Alternative destination sites will bill Medicare as usual for services furnished at the site. For the treatment in place intervention, a Participant must partner with individual Medicare-enrolled qualified health care practitioners or a Medicare-enrolled group practice that includes such practitioners. [4] Non-Participant Partners that are involved in the treatment in place intervention must be enrolled in Medicare and would bill Medicare as usual for services rendered through the ET3 Model, with the addition of a non-paying G-code to identify services as part of an ET3 treatment in place intervention. See Section II.G for additional information about potential payment adjustments for Non-Participant Partners. Applicants will be required to demonstrate that each proposed Non-Participant Partner has the capacity to serve Medicare FFS beneficiaries through this model, including the capacity to ensure that Medicare is billed for services rendered to Medicare FFS beneficiaries.

Participants must notify and educate each proposed Non-Participant Partner with which an Applicant seeks to partner about the ET3 Model such that they are able to make an informed decision about whether to participate in the model as a Non-Participant Partner. Each Participant must obtain and submit to the Innovation Center written confirmation of the consent of each Non-Participant Partner to participate as such in the ET3 Model. Each Non-Participant Partner will be subject to approval by the Innovation Center, including a program integrity vetting process (See Section VII.C, Applicant Vetting).

Each Applicant must describe its relationship to each of its proposed Non-Participant Partners in response to this RFA, including a description of any and all legal and financial relationships. The relationship between each Participant and each qualified health care practitioner or alternative destination site would be governed by independent agreements between those parties and subject to existing laws, including fraud and abuse laws.

C. Model Population

The model population for the ET3 Model includes all Medicare FFS beneficiaries enrolled in Part B who seek unscheduled, emergency ambulance services in regions where Model Participants are implementing the model. The ET3 Model is designed to increase care choices for beneficiaries who can be treated safely in lower-acuity settings or at the scene of the 911 emergency response. Transport to an alternative destination or treatment in place may only be offered to a beneficiary eligible for these model interventions, based on a Participant's established protocols. A beneficiary who is experiencing an acute medical emergency that requires medically necessary treatment in a hospital setting should be transported to a hospital ED, pursuant to applicable laws and EMS protocols in the location where the Participant operates. Participants will be required to attest that clinical protocols and other protocol guidelines relevant to the ET3 model are compliant with state and local requirements and clinical best

[4] If a Participant partners with a group practice to implement the treatment in place intervention, the Participant's agreement with the group practice must be with the TIN-Level Entity.

practices, and are subject to internal quality improvement processes to ensure that quality and safety practices are implemented and tracked.

Additionally, beneficiaries who may be eligible for model interventions would continue to be able to choose to access treatment via transportation to a hospital ED or another covered destination, subject to existing Medicare rules, if they prefer such options to receiving care at an alternative destination or treatment in place through the model. A beneficiary is also free to decline transport to a specific alternative destination; for example, a beneficiary who expresses interest in alternative destinations generally may choose ultimately to be transported to an ED or other covered destination if the Participant does not have an agreement with the specific site the beneficiary prefers.

The ET3 Model does not allow beneficiaries to "opt out" of the model's payment methodology. That is, a beneficiary who receives an item or service through the model cannot receive such care without being subject to the model's Medicare payment methodology for as long as the Participant or its Non-Participant Partner is participating in the model and the beneficiary is receiving such items and services.

D. Medical Necessity Requirements

i. Transport to Alternative Destinations

The ET3 Model will apply Medicare's medical necessity requirements for Part B ambulance services to transportation by ambulance to an alternative destination under the model. Ambulance transportation is covered under Medicare Part B only to the extent that other means of transportation are contraindicated by the beneficiary's medical condition.[5] In any case in which some means of transportation other than an ambulance could be used without endangering the individual's health, no payment may be made for ambulance services. As in the current ambulance services benefit under Part B, Medicare payment may be made for transportation by ambulance to an alternative destination only when other means of transportation are contraindicated by the beneficiary's medical condition. Participants may not receive Medicare payment for transports to alternative destinations that do not meet medical necessity requirements. Participants may suggest to a beneficiary non-ambulance transport to the appropriate care setting based on the individual's presenting needs, subject to state and local requirements.

ii. Treatment in Place

A beneficiary who does not meet medical necessity requirements for ambulance transport may still meet medical necessity requirements for a Medicare-covered item or service that is furnished by a qualified health care practitioner in-person or via telehealth, subject to existing Medicare rules. Medicare Part B pays for covered telehealth services included on the telehealth list only when furnished by an interactive telecommunications system, defined as a "multimedia communications equipment that includes, at a minimum, audio and video equipment permitting two-way, real-time interactive communication between the patient and distant site physician or practitioner. Telephones, facsimile machines, and electronic mail systems do not meet the definition of an interactive telecommunications system." [6] Neither Participants nor Non-Participant Partners may receive payment for services that are not medically necessary.

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[5] *See* Medicare Benefit Policy Manual, Chapter 10, section 10.2.1, Ambulance Services, Necessity for the Service, available at https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c10.pdf.

[6] See 42 C.F.R.410.78, Telehealth services.

A. Advanced APM and MIPS APM Determination

The ET3 Model is neither an Advanced APM nor a MIPS APM. The model does not meet Advanced APM financial risk criterion at 42 C.F.R § 414.1415(c). The model is not a MIPS APM because ambulance suppliers and providers do not meet the definition of "MIPS eligible clinician" at 42 C.F.R. § 414.1305. Therefore, Participants would not include at least one MIPS eligible clinician on a participation list as required by 42 C.F.R § 414.1370(a)(2) to be a MIPS APM.

F. ET3 Model Payments

The ET3 Model is designed to improve alignment between the health care needs of Medicare FFS beneficiaries and the covered transport and treatment options available to the ambulance suppliers and providers that serve them. To accomplish this goal, the ET3 Model will create two new Medicare payments available to Participants:

1) A payment for transport to alternative destinations; and,
2) A payment for treatment in place.

Participants are not required to implement treatment in place interventions. Equalizing payments for Participants across transport and treatment in place options, however, will permit the model to test whether treatment in place via telehealth or through in-person services are feasible alternatives to transport to an ED. Furthermore, this approach to neutralize the payment levels across each intervention under the model encourages the ambulance supplier or provider to triage beneficiaries based on their presenting health care needs, without regard to the payment they would receive.

i. Payments to Participants

a. Transport to Alternative Destinations

A Participant that transports a beneficiary to an approved alternative destination through the model must bill for and will receive payment at a rate equivalent to the appropriate Medicare Part B ambulance fee schedule (AFS) base rate for emergency Basic Life Support (BLS-E) ground ambulance (HCPCS code A0429) or emergency Advanced Life Support, Level 1 (ALS1-E) ground ambulance (HCPCS code A0427) in addition to mileage (HCPCS A0425). The appropriate payment rate is based on the existing Medicare definitions of BLS-E and ALS1-E services. In order to bill at the ALS1-E level, a Participant must render services that meet the Medicare definition of Advanced Life Support, including transportation by ground ambulance vehicle and the provision of medically necessary supplies and services including the provision of an ALS assessment by ALS personnel or at least one ALS intervention.[7]

Payment for transport to an alternative destination will include the same mileage rates and adjustments as current BLS-E or ALS1-E Medicare-covered transports to the ED.[8] Aligning Participant payments with the BLS-E or ALS1-E base rate payment for transport to the ED will align incentives to promote interventions that most appropriately address beneficiary needs. Over the life of the model, payments will be updated annually to match the BLS-E and ALS1-E base rates in the Medicare AFS.

[7] 42 C.F.R. 414.605, Fee Schedule for Ambulance Services, Definitions.

[8] Adjustments include the geographic adjustment factor (§ 414.610(c)(4)), the rural adjustment factors(§ 1834(l)(12), 42 C.F.R. § 414.610(c)(5)(i) and (ii)), rural and urban add-ons (§1834(l)(13), 42 C.F.R. § 414.610(c)(1)(ii), and the multiple patient rule, if applicable (§ 414.610(c)(6)).

b. Treatment in Place

A Participant that facilitates in-person treatment in place will be paid an amount equivalent to the BLS-E or ALS1-E base rate. In order to bill at the ALS1-E base rate, a Participant must provide medically necessary supplies and services and either an ALS assessment by ALS personnel or the provision of at least one ALS intervention.[9]A Participant that facilitates treatment in place via telehealth will be paid a modified telehealth originating site facility fee equivalent to the BLS-E or ALS1-E base rate, depending on the level of service provided. A Participant that facilitates in-person or telehealth treatment in place must separately bill Medicare using a model-specific code for an amount equal to the BLS-E base rate under HCPCS A0429 or, if the Participant meets the requirements for billing at an ALS1-E rate, under HCPCS A0427. Similar to the payments for transport to alternative destinations, aligning Participant payments for treatment in place with the appropriate BLS-E or ALS1-E base rate payment will align incentives to promote interventions that most appropriately address beneficiary needs. Over the life of the model, payments will be updated annually to match the emergency BLS-E or ALS1-E base rates in the Medicare AFS.

See Section II.F.ii.b, ET3 Model Payments – Payments to Non-Participant Partners – Treatment in Place, for information about payments to Non-Participant Partners who furnish treatment in place services in person or via telehealth through the model.

c. Performance-Based Payment Adjustment

See Section II.G, Accountability for Quality Performance, for information related to the potential performance-based payment adjustments for Participants.

ii. Payments to Non-Participant Partners

The legal and financial relationship between a Participant and an alternative destination site or qualified health care practitioner would be governed by independent agreements between those parties and subject to existing laws, including federal fraud and abuse laws. CMS is unable to provide legal advice to Applicants, Participants, and Non-Participant Partners, and encourages these individuals and entities to obtain advice from their own legal counsel as needed.

a. Treatment Following Transport to an Alternative Destination

An alternative destination site will bill Medicare as usual for services rendered to a beneficiary following transport through the ET3 Model. See Section B.3, Non-Participant Partners, for additional information..

b. Treatment in Place

A qualified health care practitioner who partners with a Participant and furnishes a Medicare-covered service to a beneficiary through in-person treatment in place or via telehealth must bill Medicare using the applicable HCPCS code for the service furnished pursuant to existing Medicare FFS rules. If the service is furnished via telehealth, the practitioner must submit to Medicare the appropriate claim for the telehealth service furnished to the beneficiary from the distant site in order to receive Medicare FFS payment for the service.

c. After-Hours Payment Adjustment

See Section II.G, Accountability for Quality Performance, for information related to the potential payment adjustments for qualified health care practitioners furnishing services through the model as Non-Participant Partners.

[9] 42 C.F.R. § 414.605, Fee Schedule for Ambulance Services, Definitions.

iii. Table 2. Illustrative Table of Possible ET3 Payment Scenarios

INTERVENTION	PAYMENT TO PARTICIPANT[10]	PAYMENT TO NON-PARTICIPANT PARTNER
TRANSPORT TO ALTERNATIVE DESTINATION	BLS-E or ALS1-E base rate + mileage and adjustments[11]	Medicare billed for services furnished under the applicable FFS rules.
TREATMENT IN PLACE (QUALIFIED HEALTH CARE PRACTITIONER, VIA TELEHEALTH)	Payment equal to BLS-E or ALS1-E base rate = Telehealth originating site fee + modifier to equal BLS-E or ALS1-E base rate	Medicare billed under Physician Fee Schedule for telehealth services furnished Payment = Medicare Physician Fee Schedule amount for furnished service
TREATMENT IN PLACE (QUALIFIED HEALTH CARE PRACTITIONER, IN –PERSON)	Payment = BLS-E or ALS1-E base rate	Medicare billed under Physician Fee Schedule for services furnished Payment = Medicare Physician Fee Schedule amount for furnished service

G. Accountability for Quality Performance

The ET3 Model intends to preserve or enhance the quality of care furnished to beneficiaries. To that effect, the model expects to use patient experience of care measures, utilization measures, and outcome measures to track experience and quality of care, identify gaps in care, and focus quality improvement activities. Delivery of high-quality care may be eligible for performance-based payment adjustments, pending the availability of valid and reliable performance metrics.

i. **Required Monitoring Measures:** Each Participant will be required to report data on monitoring measures not tied to a specific payment. See Section III, Model Monitoring & Reporting for additional information about the ET3 Model monitoring strategy.

ii. **Payment Adjustments Under the Model**:
   a. **Payment Adjustment – Qualified health care practitioner**: A qualified health care practitioner who is a Non-Participant Partner and treats an ET3 Model beneficiary during non-business hours, defined under the ET3 Model as 8:00pm-8:00am local time, as part of the model's treatment in place intervention, including services furnished via telehealth or in-person, will be subject to a 15% increase in the rate for that billed service. In order

[10] The ET3 Model retains the distinction between BLS-E and ALS1-E services captured in current Medicare requirements. In order to bill at the higher ALS1-E rate for the alternative destination transport intervention, a Participant must render services that meet the ALS1-E definition at 42 C.F.R. 414.605 and in the Medicare Benefit Policy Manual, Chapter 10, section 30.1.1 (Ground Ambulance Services), including transportation by ground ambulance vehicle, medically necessary supplies and services and either an ALS assessment by ALS personnel or the provision of at least one ALS intervention. In order to bill at the higher ALS1-E rate for facilitating treatment in place, the Participant must provide medically necessary supplies and services and either an ALS assessment by ALS personnel or the provision of at least one ALS intervention.

[11] Adjustments include the geographic adjustment factor (§ 414.610(c)(4)), the rural adjustment factors (§ 1834(l)(12), 42 C.F.R. § 414.610(c)(5)(i) and (ii)), and and rural and urban add-ons (§ 1834(l)(13), 42 C.F.R. § 414.610(c)(1)(ii), and the multiple patient rule, if applicable (§ 414.610(c)(6)).

to receive the 15% increase, eligible qualified health care practitioners will submit claims with a model-specific modifier associated with the after-hours payment adjustment.

b. **Performance-Based Payment Adjustment – Model Participants:** Participants may be eligible for performance-based payment adjustments. The availability of these adjustments is conditioned upon CMS's ability to validate potential measures using data reported by Participants during early years of the ET3 Model, and is not guaranteed. If and when valid and reliable measures are available, and no sooner than Year 3 of the Model, Participants may be eligible for up to a 5% upward adjustment to their payments for treatment in place and transport to alternative destinations. The payment adjustment would be based on performance during the previous year; for example, if valid and reliable measures are available for implementation in Year 3, the adjustment applied to payments in Year 4 would be based on quality measure performance during Year 3. The adjustment would apply only to the payments billed by the Participant for transport to alternative destinations and for treatment in place.

The final quality measure list for Year 1 will be communicated to Participants in advance of Year 1. Participants will be required to report on all model quality measures, and failure to meet reporting requirements may result in corrective action or termination. The list of required measures may be updated by CMS on an annual basis thereafter. In subsequent model years beginning with Year 2, CMS may allow Participants to report on various additional quality measures on a voluntary basis. Appendix C, Potential Measures for Performance-Based Payment, includes two measures under consideration for the potential performance-based payment adjustments for Participants described in Section G.ii.b, above.

Claims-based quality measures will be collected by CMS directly. The Model Participation Agreement will set forth reporting requirements for all applicable non-claims based quality measures.

H. Term of ET3 Model Participation Agreement

As noted in the Model Overview, the Innovation Center anticipates up to three rounds of applications for potential model Participants, including this RFA. We anticipate that the Performance Period of the Model will begin on January 1, 2020 for Participants selected to participate based on this RFA. The Performance Period for Participants who continue throughout the duration of the model is expected to conclude on December 31, 2024.

i. Fraud and Abuse Waivers

The authority for this initiative is section 1115A of the Act. Under section 1115A(d)(1) of the Act, the Secretary of Health and Human Services may waive such requirements of Titles XI and XVIII, and of sections 1902(a)(1), 1902(a)(13), 1903(m)(2)(A)(iii), and 1934 (other than subsections (b)(1)(A) and (c)(5) of such subsection) of the Act as may be necessary solely for purposes of testing models described in section 1115A(b). For purposes of this model and consistent with this standard, the Secretary may consider exercising such waiver authority with respect to the fraud and abuse provisions in sections 1128A, 1128B, and 1877 of the Act as may be necessary to develop and implement the model, pursuant to section 1115A(b). Waivers are not being issued in this document; waivers, if any, would be set forth in separately issued documentation. Thus, notwithstanding any other provision of this RFA, individuals and entities must comply with all applicable laws and regulations, except as explicitly provided in any such separately documented waiver or waivers issued specifically for ET3 pursuant to section 1115A(d)(1). Any such waiver would apply solely to ET3 and could differ in scope and design from waivers granted for other programs or models.

ii. Program and Payment Policy Waivers

CMS expects to make available conditional waivers of certain requirements of the Medicare program as authorized under section 1115A(d)(1) of the Act, referred to as Program and Payment Policy Waivers, as may be necessary solely for purposes of testing the ET3 Model.[12] These Program and Payment Policy Waivers may include, without limitation, the requirements described in Table 3:

Table 3. ET3 Medicare Program and Payment Policy Waivers

Citation to Current Requirement	Summary of Current Requirement	Model Impact/Justification
42 C.F.R §410.40(e): Origin and Destination Requirements for Ambulance Services	Limits destinations for ambulance transports to particular settings and requires that a beneficiary be transported to the nearest covered facility that is capable of furnishing the required level and type of care. (See FN 1 for additional information regarding Medicare origin and destination requirements.)	To broaden the list of acceptable destination sites and remove the proximity requirement in order to allow Participants to transport beneficiaries to alternative destinations
42 C.F.R. § 414.605, Fee Schedule for Ambulance Services, Definitions	Defines Advanced Life Support, Level 1 (ALS1) and Basic Life Support (BLS)	To allow for a payment to a Participant that engages in treatment in place that is equivalent to the emergency BLS-E or ALS1-E rate, determined by the level of service rendered by the Participant, without requiring the Participant to transport the patient from the scene of the ambulance response, in order to test whether treatment in place is a feasible alternative to transport to the ED.

[12] Note that CMS does not expect to waive the Emergency Medical Treatment and Active Labor Act (EMTALA). Each applicant must address how it will implement its proposed intervention design in compliance with the Emergency Medical Treatment & Labor Act (EMTALA), See Section VII.B, Selection Criteria, Application Review Criteria.

Citation to Current Requirement	Summary of Current Requirement	Model Impact/Justification
§1834(m)(2)(B) of the Act, Payment for Telehealth Services	Establishes the telehealth originating site facility fee (approximately $26 in 2018)	To allow for a payment to Participants of a modified originating site facility fee equal to either the BLS-E or ALS1-E rate, determined by the level of service rendered by the Participant, in order to test whether treatment in place via telehealth is a feasible alternative to transport to the ED.
§§1832(a)(2)(B), Scope of Benefits; 1861(s)(2)(B), Definitions of services, institutions, etc.	Establishes the Part B benefit for medical and other health services furnished by a provider of services. Defines "medical and other health services" to include outpatient hospital services.	To allow medical and other health services that otherwise would be furnished in a hospital outpatient setting to be furnished by, and paid to, the Participant (payment equal to BLS-E or ALS1-E base rate, determined by the level of service rendered by the Participant), to test whether treatment in place is a feasible alternative to transport to the ED
1834(l) of the Act; 42 C.F.R. §414.610, Ambulance Fee Schedule, Basis of Payment	Establishes the fee schedule for Medicare payment of ambulance services	To allow Participants who meet certain performance criteria to receive up to a 5% upward adjustment to their payment rate under the Medicare Ambulance Fee Schedule for transports to alternative destinations in years 3-5 of the model to incentivize high-quality care and test the impact of quality-adjusted payments on key performance metrics.

Citation to Current Requirement	Summary of Current Requirement	Model Impact/Justification
§1848(a)(1) of the Act, Payment of Benefits	Requires that payment amounts for physicians' services be determined under the Physician Fee Schedule (PFS).	To allow Non-Participant Partners who render services to beneficiaries through the ET3 model treatment in place intervention via telehealth or in-person after business hours to receive a 15% increase to the rate for their billed service, in order to increase the availability of the ET3 treatment in place interventions after hours as an alternative to treatment in the ED
1834(m)(2)(A), Payment for Telehealth Services, Payment Amount, Distant Site	Requires that a physician or practitioner located at a distant site that furnishes a telehealth service to an eligible telehealth individual be paid an amount equal to the amount that such physician or practitioner would have been paid under this title had such service been furnished without the use of a telecommunications system.	To allow Non-Participant Partners who render services to beneficiaries through the ET3 model treatment in place intervention via telehealth after business hours to receive a 15% increase to the rate for their billed service, in order to increase the availability of ET3 model interventions after hours as an alternative to treatment in the ED
1834(m)(2)(B) and (m)(4)(C) of the Act; 42 C.F.R. §410.78(b)(3) and (b)(4): Telehealth originating site and geographic reuirements	Limits telehealth services to those furnished in specific types of originating sites located in certain (mostly rural) areas	To allow beneficiaries to receive telehealth services in originating sites other than those listed in the regulations and in non-rural areas, in order to test whether treatment in place via telehealth originating at the scene of an ambulance response is a feasible alternative to transport to the ED

III. MODEL MONITORING & REPORTING

A. Monitoring: Program Integrity

CMS is committed to strict penalties for Participants that violate the terms of the agreement or engage in non-compliance, fraud, abuse, or misuse. The Innovation Center will vet and continuously monitor ET3 Participants to prevent, identify, and respond to fraud and abuse related to the model, including monitoring for overutilization of services associated with the model. Participants that do not meet the model requirements outlined in their Model Participant Agreement will be considered for corrective action, including funding restrictions, and/or other sanctions, including possible termination from the model. The Innovation Center and its contractors will work with the CMS Center for Program Integrity

and the HHS Office of the Inspector General to report and refer any suspected non-compliance, fraud, abuse, or misuse for further investigative or administrative action as appropriate under existing law. These actions may include overpayment recovery, exclusion from federal health care programs, imposition of civil monetary penalties, and/or referral to law enforcement (See also, III.C, Monitoring: Corrective Action).

Each Applicant will be required to provide information about current compliance programs and describe plans to ensure compliance with all relevant Medicare and federal fraud and abuse laws in their implementation of the ET3 Model, including a plan for avoiding inappropriate utilization of services available under the ET3 Model. Applicants should consult the OIG's voluntary Compliance Program Guidance for Ambulance Suppliers as they develop their responses to this RFA.

See Section VII.C, Applicant Vetting, for additional information about the program integrity and law enforcement vetting process for Applicants, Participants, and Non-Participant Partners. CMS will also vet each alternative destination site and qualified health care practitioner proposed by an Applicant or Participant as a Non-Participant Partner.

B. Monitoring: Beneficiary Protections and EMS Systems Impact

CMS will monitor the impact of the model on quality of care to ensure that the model upholds the highest standards of beneficiary safety. Participants may neither restrict beneficiary access to medically necessary care, nor misuse their participation in the ET3 Model to bill for medically unnecessary care. To safeguard against inappropriate provision of care, including overutilization of services associated with the model, CMS and its contractors will routinely monitor and analyze data on service utilization, and may review utilization and referral patterns. CMS and its contractors will also conduct medical record audits, track patient complaints and appeals, and monitor patient outcome measures to assess improvement, deterioration, or any deficiencies in quality of care under the Model.

In addition to CMS monitoring for measures of beneficiary safety, CMS contractors will work together to ensure that Participants receive information on the safety of their triage decisions to foster continuous quality improvement under the model. Further, the model will monitor its impact on the broader EMS system in the communities where it is implemented to ensure that the innovations transform care delivery appropriately, without promoting negative unintended consequences, such as increases in 911 calls as a means to utilize the model for ambulance-led home care visits.

All Participants will be required to comply fully with requests by CMS and its contractors related to provide data related to the ET3 initiative for monitoring and quality assessment, including: providing data related to Participants, Non-Participant Partners, and beneficiaries; being available for site visits by CMS staff and its contractors at the Participant's facilities, in accordance with the terms of the ET3 Model Participation Agreement; requiring its Non-Participant Partners to be available for site visits at their respective facilities by CMS staff and its contractors; and, participating in surveys and interviews. Participants will be expected to provide CMS and its contractors with ongoing monitoring information by tracking and reporting various measures of performance improvement efforts and operational metrics. Examples of such monitoring efforts may include, but are not limited to, measurements of:

- proportion of dispatches that result in transport;
- adherence to triage protocols; and,
- EMS response time from dispatch to arrive on scene for critical illness

CMS and its contractors may also monitor metrics such as:

- overall 911 call volume;
- proportion of calls that result in dispatch;
- patterns of frequent utilization of services by beneficiaries, Participants, Non-Participant Partners, and downstream practitioners, including multiple events for the same beneficiary in the same day and overutilization of model services including services associated with treatment in place; and
- diagnostic codes for services furnished by Non-Participant Partners and downstream practitioners through treatment in place or at alternative destination sites

Data to support these efforts will draw from claims and reporting requirements from either model Participants or cooperative agreement awardees, as appropriate. Participants' performance will be assessed against their own historical performance, as well as against a comparison group.

C. Monitoring: Corrective Action

When it is determined, through monitoring or otherwise, that a Participant or Non-Participant Partner is not in compliance with Model requirements, CMS may send a Participant a warning letter; terminate the Participant's ET3 Model Participation Agreement; require the Participant to terminate arrangements with one or more Non-Participant Partners; require Participants to implement a corrective action plan (CAP); and/or take other corrective action. Any CAP implemented for purposes of the ET3 Model must require the Participant to propose a plan for achieving compliance and allow CMS to determine whether such changes were made. Failure to comply with the requirements of the CAP, or with the ET3 Model Participation Agreement itself, may result in termination of the Participant's ET3 Model Participation Agreement or referral to law enforcement, or both, if necessary.

IV. MODEL EVALUATION

CMS will contract with an independent evaluator to conduct the Model evaluation pursuant to section 1115A(b)(4) of the Act. Each Participant will be required to cooperate with the independent evaluator to track and provide any and all relevant data, as may be needed for the Model evaluation, and must require their Non-Participant Partners to do the same. Evaluation activities may include, but are not limited to, supplying data to measure quality, patient characteristics, utilization, etc.; participating in surveys, interviews, and site visits; and participating in other activities deemed necessary to conduct a comprehensive formative and summative evaluation. CMS will seek to align measures in these areas and those related to other programs and initiatives to reduce Participant burden.

V. LEARNING SYSTEM ACTIVITIES

A Learning System is a structured approach to sharing, integrating, and actively applying quality improvement concepts, tactics, and lessons learned, all aimed at improving the likelihood of success of the model. CMMI will design, implement, and manage an ET3 learning system, and tailor it to the needs of model Participants and their Non-Participant Partners. The learning system functions by: 1) identifying and packaging new knowledge and practice; 2) leveraging data and Participant input to guide change/improvement; and 3) building learning communities and networks to share and spread new knowledge and practice.

A. Learning System Activities for Participants

Model Participants will be required, under the terms of the ET3 Model Participation Agreement, to actively participate in and shape this learning system and related activities as a condition of participation in ET3. The learning system will facilitate peer learning and information-sharing around how best to achieve quick and effective performance improvement. The learning system will allow Participants to share experiences, glean promising practices from their peers, and further develop and improve their own programs throughout the term of their ET3 Model Participation Agreement. The Innovation Center will undertake various approaches to group learning and exchange, helping Participants to effectively share their experiences, track their progress, and rapidly adopt new ways of achieving improvements in care quality, as well as reductions in Medicare FFS expenditures. The learning system will encourage Non-Participant Partners (e.g. alternative destination sites), as well as state Medicaid agencies to join this robust learning network to ensure rapid diffusion of promising practices across all partners.

Potential learning system activities for this initiative include learning sessions; topic-specific webinars; group-specific virtual collaborations and affinity groups; interactive discussions; vignettes; case studies; virtual or in-person site visits by CMS and CMS contractors to Participants, and Non-Participant Partners by request or at CMS' discretion; interviews to assist with identifying, acknowledging and studying high performers, variation in performance as well as lessons learned from performance-improvement efforts; and other opportunities for Participants to share their best practices, challenges, and lessons learned.

For state Medicaid agencies that are interested in working with ET3 Model Participants to pilot multi-payer alignment in states or sub-state regions, the learning system may offer activities, such as: technical assistance for state plan amendment creation and other relevant needs; training to promote spread and scale; and activities that address barriers to payment development and implementation. Further, peer-to-peer learning among states is a key activity because state-to-state knowledge transfer about medical triage line implementation in unique state environments is crucial to successful multi-payer alignment and model adoption by other states.

The Participant shall:

1. Participate in learnings throughout the course of the ET3 Model, including the period after Participant selection but prior to performance start date. One of these activities includes driver diagram development. Within the first year of the model, Participants will develop and submit to CMS, or its contractor(s), an individualized Participant driver diagram (after submission to CMS, the Participant driver diagram should be maintained and updated by the Participant throughout the life of the model as a framework to guide and align intervention design and implementation activities and shared with CMS upon request);
2. Respond to CMS and its contractors and staff to surveys or interviews (or other mechanism) to assist CMS in identifying Participant learning needs;
3. Participate in the identification and dissemination of promising practices which may involve sharing lessons learned with other ET3 Model Participants (i.e. presenting on webinars, etc.);
4. Consistent participation in monthly ET3 Model learning activities during the 5-year model period is required. Repeated failure to actively participate in learning events could result in corrective action and/or termination from the model;
5. Develop, track and report to CMS on quality improvement efforts, activities, and program measures, at regular intervals; and
6. Participate in at least one in-person event (TBD). The location of each in-person event will be made at CMS's sole discretion. In-person events may be held in the Baltimore/District of Columbia area, or in another location. These events will be geared towards Participant

learning, collaboration, dissemination of ET3 Model promising practices, and other Participant needs.

For a discussion of the activities that are expected to comprise the learning system, see the Learning System Strategy and Structure in Appendix B of this RFA. Applications should describe, in their ET3 application, how they plan to participate in the ET3 learning system, as well as how they plan to engage and involve their additional partners in learning system activities.

VI. CONDITIONS OF MODEL PARTICIPATION

A. Eligible Applicants

An Applicant may be any entity eligible to participate in ET3 as an ambulance supplier or provider prior to the final determination by CMS of the Applicant's selection status.

Each application must identify a single entity that seeks to participate in ET3 and will accept and bear financial responsibility to Medicare under the ET3 Model. Each Participant must continue to offer its services as a Medicare provider or supplier as a condition of continuing participation in the ET3 Model. Participants must obtain approval from CMS prior to finalizing partnerships with Non-Participant Partners, and must notify CMS if the terms of an agreement with a Non-Participant Partner materially change during the course of the Model Performance Period, including termination of services.

CMS's general policies for addressing overlap with other CMS initiatives are described in Section VI.C. If an Applicant is selected, CMS will address Participant-specific issues pertaining to overlapping participation in other CMS initiatives (e.g., related to transition timing) in CMS's sole discretion, as necessary.

B. Participation in Other CMS Quality Initiatives

Participants and Non-Participant Partners must continue to participate in all applicable CMS quality reporting initiatives for the duration of the Model.

C. Overlap with Other CMS Initiatives

An entity may concurrently participate in ET3 and other CMS initiatives, including shared savings, total cost of care, and medical home initiatives. However, for entities that simultaneously participate in these initiatives, CMS reserves the right to potentially include additional requirements, revise initiative parameters, or ultimately prohibit simultaneous participation in multiple initiatives, based on a number of factors, including CMS's capacity to avoid counting savings twice in interacting initiatives and to conduct a robust evaluation of each such initiative.

With respect to the Medicare Prior Authorization of Repetitive, Scheduled Non-Emergent Ambulance Transport model, because this initiative focuses on non-emergent ambulance transport and the ET3 Model would focus on 911-initiated, pre-hospital emergency transportation, opportunity for overlap is low; however, ambulance suppliers and providers participating in this initiative may overlap with those eligible to participate in the ET3 Model.

VII. APPLICATION SUBMISSION PROCESS

A. Overview of the Application Submission Process

CMS is not currently accepting applications. Round 1 applications will be accepted via a separate application platform only. Information about the application process, including the date that the application portal will open and a link to the application portal when it becomes available, will be posted on the ET3 Model Website at https://innovation.cms.gov/initiatives/et3.
As described in the Model Overview, the ET3 model anticipates up to three application rounds. Each application round has its own respective application processes. Applicants that completed the round one process and were not selected for participation may apply for participation in subsequent rounds, but round one application materials will not be held for reevaluation in subsequent rounds. Therefore, an Applicant that completed the round one process and was not selected for participation must submit a unique Application for consideration in round two and/or round three. An Applicant selected for the model in round one who chooses not to participate in round one must submit a unique Application for consideration to apply for a subsequent round.

CMS reserves the right to request interviews, site visits, or additional information related to application responses from Applicants in order to assess their applications.

Any questions that arise during the application process may be directed to the ET3 Model mailbox: ET3Model@cms.hhs.gov

B. Requests to Withdraw a Pending Application

Applicants seeking to withdraw an entire application or to remove one or more specific proposed non-Participant partners from an application after it has been submitted on the application portal, but prior to the execution of the ET3 Model Participation Agreement for Applicants selected to participate in the Model, should submit a written request on the Applicant organization's letterhead, signed by an official authorized to act on behalf of the organization, via email to: ET3Model@cms.hhs.gov

The following Applicant information must be included in any such request:

- Applicant Organization's Legal Name, as it appears in the application, as well as any "Doing Business As" name;
- Applicant Identification Number provided by CMS at the time the application is created;
- Address and Point of Contact information for the Applicant organization; and
- Exact Description of the Nature of the Withdrawal/Removal, e.g., withdrawal of the entire application or removal of an individual Non-Participant Partner

C. Applicant Vetting

Participants will apply and be accepted into the ET3 Model based on the content of their application and ability to pass program integrity and law enforcement vetting. All applications will be assessed to first determine eligibility to participate in this model.

CMS may deny an application on the basis of information found during a program integrity screen regarding the Applicant, any proposed Non-Participant Partner, or any other relevant individuals or entities. Applicants must disclose all present or past history of any sanctions or other actions of an accrediting organization or a federal, state, or local governmental agency; investigations including being subject to the filing of a complaint, filing of a criminal charge, being subject to an indictment, or being named as a defendant in a False Claims Act qui tam matter in which the government has intervened, or similar action; probations; corrective action plans; or any other administrative enforcement actions;

each related to the Applicant, its affiliates or any other relevant persons and entities. Applicants must also disclose all debts currently due and owing to CMS by the Applicant, its affiliates, or any other relevant persons or entities. If selected, each Participant will continue to be subject to periodic screening throughout the Model Performance Period, at CMS's discretion.

The Participant will also be required to identify to CMS all proposed Non-Participant Partners throughout the Model Performance Period to allow CMS to vet each such provider or supplier before approving the Non-Participant Partner to furnish services through the model. Proposed alternative destination sites that are not enrolled in Medicare will be required to provide more information than Medicare-enrolled counterparts as part of the vetting process.

In addition to the vetting process outlined above, the ET3 Model will employ an implementation contractor to confirm any financial arrangements disclosed by each Participants and to identify the existence of any financial arrangements not disclosed (e.g., a single entity with ownership over both a participating ambulance service supplier and an alternative destination site with which the Participant partners.)

D. Exception Process

CMS will consider exception requests to the application criteria outlined in this RFA specific to participation in the ET3 Model and will reserve the right, in CMS's sole judgment, to admit an Applicant that does not strictly meet such criteria under limited circumstances. In addition, CMS may consider applications submitted by entities that do not meet the application criteria at the time of application, but that are anticipated to qualify by the application deadline for the applicable enrollment date. Applicants seeking an exception should do so in writing by submitting an exception request to: ET3Model@cms.hhs.gov , describing the specific application criteria for which an exception is sought and why the exception is needed under the Applicant's specific circumstances. Applicants are strongly encouraged to make such requests well in advance of the applicable application deadline.

In circumstances where an Applicant seeks an exception from the quality-related criteria outlined in the RFA, CMS will apply a high degree of scrutiny to the request, and is unlikely to approve such an exception without undertaking additional monitoring or imposing additional conditions through the ET3 Model Participation Agreement. CMS will not grant an exception to an Applicant that failed to pass the Applicant screening process described above, or that fails to demonstrate how their requested exception, if granted, will not undermine the integrity of the model test or the Medicare program generally.

E. Termination of ET3 Model Participation Agreements

CMS reserves the right to terminate an ET3 Model Participation Agreement with a Participant, or require a Participant to terminate its agreement with an alternative destination site or qualified health care practitioner, if required under section 1115A of the Act or for the reasons stated below, including, but not limited to:

- If the Participant consistently does not meet quality performance thresholds or benchmarks required under the ET3 Model Participation Agreement.
- If the Participant fails to meet reporting requirements specified in the Participation Agreement, including failure to report data on monitoring and quality measures

- If the Participant is subject to action by the Department of Health and Human Services (HHS) or the Department of Justice involving violations of applicable laws, statutes, and regulations, including but not limited to: federal criminal laws, the federal False Claims Act, antitrust laws, the federal anti-kickback statute, the federal civil monetary penalties law, the federal physician self-referral law or any other applicable Medicare laws, rules or regulations that are relevant to this Model.
- If the Participant consistently fails to participate in required ET3 Model learning system activities.
- If the Participant fails to execute agreements with sufficient alternative destination sites or qualified health care practitioners to implement the model as proposed in its responses to this RFA.
- If the Participant does not make at least one non-ED alternative available to beneficiaries 24 hours a day, 7 days a week.
- If the Participant, or any of the alternative destination sites or qualified health care practitioners that it has engaged, are identified as noncompliant through monitoring of the Model or otherwise, which includes but is not limited to restricting access to medically necessary care.
- If the Participant fails to pay back money owed to the Medicare program as specified in the ET3 Model Participation Agreement or any Audit issued pursuant thereto.
- If the Participant unreasonably interferes with or impedes CMS's and its designees' monitoring and evaluation activities.
- If the Participant is unable to implement the model due to state or local laws or scope of practice barriers.
- If the Participant is determined to not comply with any of the Federal requirements for participation as a Medicare provider or supplier, including the Conditions of Participation, Conditions for Coverage, or Requirements of Participation.

The ET3 Model Participation Agreement may detail additional reasons for termination.
CMS also reserves the right to end the initiative in whole or in part, at any time prior to the end of the Performance Period of the Model, if CMS determines, in CMS's sole discretion, that there are no longer sufficient funds to implement the model or that continuing the Model is no longer in the public interest. CMS also reserves the right to modify or terminate the Model if it no longer satisfies the requirements of section 1115A of the Act. In the event of any such conclusion, modification, or termination, CMS will promptly notify the Participants, in writing, of the reasons and the effective date thereof.

VIII. SELECTION CRITERIA

Please see Section VII of this RFA for further information regarding the application submission process.

A. Ineligibility Criteria

CMS will consider the following criteria as potential reasons for Applicant disqualification for selection. This list is non-exhaustive and is intended only as a guide for Applicants. An Applicant whose responses to this RFA include these features, notwithstanding its response to other application requirements, may not be eligible to participate in the ET3 Model.

a. **Incomplete application.** A non-exhaustive list of circumstances that constitute an incomplete application includes:
    - Failure to provide complete information in response to Appendix E, "ET3 Organizational Information"

- Failure to specify a proposed ET3 Model region that meets requirements set out in Section II.B.1, Key Model Features, Model Region and Table 4, Application Review Criteria;
- Failure to meet application requirements, including failure to fully respond to requests for data or failure to present sufficient detail in response to application criteria;
- Omission of an Intervention Plan related to Alternative Destination transportation
- Omission of a Compliance Plan
- Omission of an Interoperability Plan
- Omission of a Payer Strategy that identifies a plan to align ET3 innovations across multiple payers; or, explains how the Applicant will operationalize its proposed intervention design for Medicare FFS beneficiaries only.

b. **Failure to demonstrate Medicare enrollment in good standing**.
c. **24/7 Capability:** Failure to provide a plan to ensure the availability of one or more non-ED alternative destination options 24 hours per day, 7 days per week.
d. **Duplication of another model**, **demonstration, or program**, including an Innovation Center model, which may result in duplicate payments for similar services or other waste of federal funds. A program overlap may include an overlap in service area, participating organizations or providers, or beneficiaries.
e. **Insufficient supporting detail** provided in the application. CMS will not review applications that merely restate the text within the RFA. Applicants should detail their approach to achieving model goals and milestones. Reviewers will note evidence of how effectively the Applicant includes these elements in their application.
f. **Inability or unwillingness to obtain and submit to the Innovation Center written confirmation of the consent of each alternative destination site and Medicare-enrolled qualified health care practitioner to participate in the model as a Non-Participant Partner**.
g. **Inability or unwillingness to attest to clinical protocol quality improvement activities.** Participants will be required to attest that clinical protocols and other protocol guidelines relevant to the ET3 Model adhere to state and local requirements and clinical best practices, and are subject to internal quality improvement processes to be detailed in the Model Participant Agreement.
h. **Inability or unwillingness to collect and share monitoring, quality, and evaluation data** with CMS or its contractors.
i. **Inability or unwillingness to ensure the participation of all model partners in qualitative evaluation activities and providing patient-level data**. These activities may include, but are not limited to, arranging site visits, observations, interviews and focus groups with providers and patients as well as program staff, gathering any required consent, and other activities as needed.
j. Inability or unwillingness to participate in the model Learning System and engage Non-Participant Partners in the Learning System.
k. **Program integrity concerns**. CMS may deny selection to an otherwise qualified Applicant on the basis of information found during a program integrity review regarding an Applicant, Non-Participant Partner, or any other relevant individuals or entities.
l. **Late submission** of an application (refer to Section VII).

B. Application Review Criteria

CMS will assess all applications for eligibility and conduct screening activities to ensure successful Applicants are eligible to receive Medicare payments. Each complete application will be reviewed by individuals at CMS with expertise in the areas of Medicare payment policy, emergency medical services, ambulance services, care improvement, and care coordination based on the Application Review Criteria listed in Table 4, below.

Applications will also be shared with contractors bidding for CMS's ET3 Model evaluation and/or implementation and monitoring contracts, and with the selected evaluation and/or implementation and monitoring contractors. Such contractors will be required to sign a non-disclosure agreement prohibiting re-disclosure of any information provided by Applicants under this RFA.

CMS will establish guidelines for reviewers and will prioritize applications based on the following components:

A. Applicant Organizational Information
B. Proposed Model Region
C. Applicant Governance Structure and Capacity to Implement the ET3 Model
D. Intervention Design: Alternative Destination Intervention
E. Intervention Design: Treatment in Place Intervention (Optional)
F. Interoperability Plan
G. Compliance Analysis and Plan
H. Payer Strategy, and
I. Patient-Centered Design

Each Applicant that proposes to implement the optional Treatment in Place intervention has the opportunity to earn additional points towards its overall application score.

Note to Applicants:

- CMS will consider the potential to maximize the total number of beneficiaries served when making final selection decisions.
- The application itself is not a legally binding agreement and does not require any Applicant or CMS to enter into a binding agreement.
- CMS will select Participants at CMS's sole discretion. Such selection will not be subject to administrative or judicial review, per section 1115A(d)(2) of the Act.

i. Table 4. Application Review Component Value

Component	Value
Applicant Organizational Information	0
Proposed Model Region	10
Applicant Governance Structure and Capacity to Implement the ET3 Model	10
Intervention Design: Alternative Destination Intervention	35
Intervention Design: Treatment in Place Intervention (Optional)	*Up to 10 bonus points*
Interoperability Plan	10
Compliance Analysis and Plan	15
Payer Strategy	20
Patient-Centered Design	10

ii. Application Review: Component Criteria

Applicant Organizational Information

1. Completed responses to information required in Appendix E, "ET3 Organizational Information."

Proposed Model Region

1. State: In order to be eligible to participate in the ET3 Model, an Applicant must propose a model region located in a state or states where at least 15,000 Medicare FFS emergency ambulance transports occurred in the 2017 calendar year. If an Applicant proposes a region that includes more than one state, each state must be one in which at least 15,000 Medicare FFS emergency ambulance transports took place during the 2017 calendar year. Applicants should refer to Appendix D, *Medicare FFS Emergency Transport Volume by State and County or Equivalent Entity,* to determine whether its proposed region is located in a state or states that meet this 15,000 transport volume threshold. An Applicant that proposes to implement the model in an ineligible state, notwithstanding its response to other application requirements, will not be eligible to participate in the ET3 Model.
2. Proposed Region: Each Applicant must identify the county or counties (or equivalent entity or entities) in which it proposes to implement the ET3 Model. The Applicant must demonstrate that it currently provides, and expects to continue to provide for the duration of the model performance period, Medicare-covered emergency ambulance services to Medicare FFS beneficiaries within all counties or county-equivalents in the proposed model region.
3. Transport Volume in the Proposed Region: Preference will be given to Applicants who propose a model region that includes at least one county or equivalent entity in which 7,500 Medicare FFS emergency ambulance transports occurred in the 2017 calendar year. Transport totals across multiple counties or equivalent entities cannot be combined to meet the 7,500 transport threshold. Applicants should refer to Appendix D, Medicare FFS Emergency Transport Volume by State and County or Equivalent Entity, to determine whether its proposed region includes a county or equivalent entity that meets this threshold.

Applicant Governance Structure and Capacity to Implement the ET3 Model

1. An explanation for how the Applicant's governing body or other organizational mechanisms would make and execute decisions related to the ET3 Model; develop, implement, and monitor clinical protocols relevant to ET3 Model innovations; and develop and oversee compliance with federal fraud and abuse requirements.
2. A description of the Applicant's current unscheduled, emergency ambulance services capacity, including the number of 911-dispatch generated ambulance transports conducted annually; the proportion of total transports per year that are in response to 911 dispatch (versus scheduled or unscheduled non-emergency transports); and, to the extent data are available, the number and percentage of emergency transports of Medicare FFS beneficiaries.
3. If applicable, demonstrate good conduct in prior CMS programs and/or demonstrations.

Intervention Design: Alternative Destination Intervention

1. Each Applicant must provide a full description of the Applicant's plan to implement the model's alternative destination transport innovation, including:
    i. A description of the specific group or groups of Medicare FFS beneficiaries (identified by pertinent criteria, such as age range, presenting symptom or sign, key pertinent

positives or negatives in past medical history or review of systems, or other criteria) the Applicant currently transports to hospital emergency departments (EDs) and that the Applicant believes would be appropriate for transport to alternative destinations.

ii. An estimate of the number of ED transports per year that the Applicant believes could be redirected to alternative destinations through the model.

iii. A strategy for ensuring patient safety and quality of care for beneficiaries who are transported to alternative destinations through the ET3 Model.

iv. A description of the process and timeline for obtaining approval for any new clinical protocols that would be required to implement the alternative destination intervention within the context of the Applicant's local and/or state EMS authorities;

v. A strategy for identifying and retaining alternative destination site partners that will furnish services to Medicare FFS beneficiaries who arrive by ambulance. An alternative destination site must have sufficient Medicare-enrolled physicians or other practitioners to meet the needs of Medicare FFS beneficiaries who require services through the model. Applicants should not propose alternative destination sites that are covered under Medicare's existing ambulance services benefit or sites that would provide scheduled, non-emergency services to beneficiaries receiving alternative destination transport services through the model. The strategy must include a description of the types of alternative destination sites with which the Applicant will seek to partner; an explanation for how such partners will promote ET3 Model goals of improving quality of care and reducing costs for Medicare FFS beneficiaries within the context of medically necessary, unscheduled emergency ambulance services only; a timeline for identifying and finalizing partnerships; and a description of the legal and financial relationship between the Applicant and each proposed alternative destination site.

vi. To the extent that the Applicant has identified specific alternative destination sites at the time it submits its response to this RFA, the Applicant should include a letter of intent that identifies the following information for each proposed alternative destination site: a.) legal business name of proposed altnernative destination site; b.) other name(s), such as DBA(s); c.) correspondence address; d.) National Provider Identifier (NPI) number; d.) Medicare Provider Identification Number(s), if issued; and, e.) a description of the proposed alternative destination site's capacity to treat Medicare FFS beneficiaries who are transported to the alternative destination site through the ET3 model. If the Applicant has identified one or more alternative destination site(s) that is not a Medicare-enrolled provider or supplier, it must provide the additional information set out in Appendix E.II, Proposed Alternative Destination Sites – Non-Medicare Enrolled Entities in the letter of intent. Each letter of intent should be signed by an individual with the authority to bind the alternative destination site entity. The Applicant should also explain in its response to this RFA how each proposed partner will promote ET3 Model goals of improving quality of care and reducing costs for Medicare FFS beneficiaries within the context of unscheduled, emergency ambulance services only.

vii. A plan to ensure sufficient alternative destination site capacity to serve the population(s) identified in D.1 taking into account the potential that more than one model Participant may be selected within a single region. The plan should identify a process for ensuring real-time capacity to serve a beneficiary prior to transporting that beneficiary to an alternative destination site.

viii. A plan for notifying and educating each Medicare-enrolled alternative destination site with which an Applicant seeks to partner about the ET3 Model such that they are able to make an informed decision about whether to participate in the model as a Non-Participant Partner. If an Applicant is selected to participate in the model, each Participant must obtain and submit to the Innovation Center written confirmation of the consent of each alternative destination site to participate in the model as a Non-Participant Partner

ix. A plan for ensuring the availability of one or more non-ED ET3 options 24 hours per day, 7 days per week, which may include one or more alternative destination sites or treatment in place options approved in advance by CMS, but not necessarily both.

Intervention Design: Treatment in Place Intervention (Optional)

1. *Applicants are not required to propose to implement treatment in place. Applicants that plan to implement treatment in place are eligible for up to 10 additional points based on their responses to this criterion. If the Applicant proposes to implement treatment in place through telehealth or in-person services, the Applicant must provide a full description of the Applicant's plan to implement the model's treatment in place innovation, including:*
    i. *A clear statement of intent to implement treatment in place through a) telehealth; and/or b) in-person services during the model performance period, including the proposed timeline for implementing treatment in place.*

    ii. *A description of the specific group or groups of Medicare FFS beneficiaries (identified by pertinent criteria, such as age range, presenting symptom or sign, key pertinent positives or negatives in past medical history or review of systems, or other criteria) the Applicant a)currently transports to hospital EDs and that the Applicant believes would be appropriate for treatment in place via telehealth and/or in-person services; or, b) does not currently transport but that the Applicant believes would be appropriate for treatment in place as proposed in its response to this RFA, and an explanation for how this approach is aligned with ET3 Model goals of averting unnecessary emergency department transports and reducing Medicare FFS costs.*

    iii. *An estimate of the number of ED transports per year that the Applicant believes could be avoided through its implementation of the treatment in place intervention.*

    iv. *A strategy for ensuring patient safety and quality of care for beneficiaries who are treated in place through the ET3 Model.*

    v. *A description of the process and timeline for obtaining approval for any new clinical protocols that would be required to implement the Treatment in Place intervention within the context of the Applicant's local and/or state EMS authorities;*

vi. *A strategy for identifying and retaining qualified health care practitioners that will furnish services to Medicare FFS beneficiaries who elect treatment in place through the model; a timeline for identifying and finalizing partnerships; a description of the proposed legal and financial relationship between the Applicant and each qualified health care practitioner or entity.*

vii. *To the extent that the Applicant has identified one or more specific qualified health care practitioners at the time it submits its response to this RFA, the Applicant should include a letter of intent that identifies the following information for each proposed qualified health care practitioner: a.) Name (First, Last, Middle Initial and Titles, e.g., Sr., Jr., etc.); b.) Correspondence Address; c.) National Provider Identifier (NPI) number; d.) Medicare Identification Number(s), if issued; and e.) a description of the proposed practitioner's capacity to treat Medicare FFS beneficiaries via telehealth or in-person treatment in place. Each letter of intent should be signed by the proposed qualified health care practitioner. The Applicant should also explain in its response to this RFA how each proposed partner will promote ET3 Model goals of improving quality of care and reducing costs for Medicare FFS beneficiaries within the context of unscheduled, emergency ambulance services only.*

viii. *A plan to ensure sufficient capacity through the proposed treatment in place intervention design to serve the population(s) identified in E.2, taking into account the potential that more than one model Participant may be selected within a single region.*

ix. *A plan for notifying and educating each Medicare-enrolled qualified health care practitioner with which an Applicant seeks to partner about the ET3 Model such that they are able to make an informed decision about whether to participate in the model as a Non-Participant Partner. Each Participant must obtain and submit to the Innovation Center written confirmation of the consent of each Medicare-enrolled qualified health care practitioner to participate in the model as a Non-Participant Partner.*

x. *If an Applicant proposes to implement treatment in place using telehealth, a description of the interactive telecommunications system the Applicant will use to facilitate Medicare-covered telehealth services rendered by qualified health care practitioners.*

xi. *A plan for ensuring the availability of one or more non-ED ET3 options 24 hours per day, 7 days per week, which may include one or more alternative destination sites or treatment in place options, but not necessarily both. ld be avoided through its implementation of the treatment in place intervention.*

Interoperability Plan

1. An interoperability plan that demonstrates the Applicant's ability to share patient data, including protected health information if applicable, among key stakeholders such as those listed below:
    i. Non-Exhaustive List of Data-Sharing Partners:

        a. Applicant (ambulance supplier or provider);

b. Alternative destination sites;
c. Beneficiaries' self-identified routine health care provider (e.g., primary care physician);
d. Medicare-enrolled qualified health care practitioners partnering with the Applicant to furnish services through the ET3 Model;
e. Other payers, including Medicaid payers; and,
f. Any other entities, systems, or individuals that the Applicant believes will have access to data related to model activities, including but not limited to beneficiary-specific data

ii. In order to fulfill this requirement, Applicants should demonstrate current participation in a health information exchange (HIE) or set out a plan to participate in an HIE during the model performance period; or, should demonstrate their ability to use HIE standards such as Application Programing Interfaces (APIs), JavaScript Object Notation (JSON), FHIR, or Extensible Markup Language (XML) (see Appendix A, Glossary) or set out a plan to achieve this capability during the model performance period.

iii. The plan should also demonstrate an understanding of state and federal privacy laws and ensure compliance with these standards, including HIPAA privacy regulations and 42 C.F.R. Part 2. The plan should clearly identify when and how patient consent and authorization will be obtained, including written patient consent where required.

Compliance Analysis and Plan

1. Analysis of Current Compliance Risks
    i. An analysis of current compliance risks and readiness to implement the ET3 Model in compliance with Medicare program and payment rules and federal fraud and abuse laws. The risk analysis must be based on the HHS Office of the Inspector General's Compliance Program Guidance for Ambulance Suppliers and must include an evaluation of current processes for developing and updating policies and procedures governing daily operations and training/education; an assessment of the Applicant's claims submission process; a description of the Applicant's systems review processes; and a description of the Applicant's screening process for new employees or new contractors.

2. ET3 Compliance Plan
    i. A plan to ensure compliance with federal fraud and abuse standards within the context of ET3 Model implementation. Proposed compliance plans must address each of the basic elements of a compliance program for ambulance suppliers identified in the HHS Office of the Inspector General's Compliance Program Guidance for Ambulance Suppliers: 1. Development of Compliance Policies and Procedures, 2. Designation of a Compliance Officer, 3. Education and Training Programs, 4. Internal Monitoring and Reviews, 5. Responding Appropriately to Detected Misconduct, and 6. Enforcing Disciplinary Standards Through Well-Publicized Guidelines.
    ii. A plan for avoiding inappropriate utilization of ET3 Model services, including overutilization and under-triaging of patients who are transported to alternative destinations and, if applicable, receive services via treatment in place.
    iii. A plan for successfully implementing the proposed intervention design within the context of relevant emergency medical services laws, regulations, and policies (including policies of individual Applicants, alternative destination sites, or qualified health care practitioners) in the region in which the Applicant proposes to implement the model. The Applicant should, at a minimum, address how it will implement its proposed intervention design in compliance with the Emergency Medical Treatment & Labor Act (EMTALA), including with respect to proposed alternative destination sites ; and laws and scope of practice rules governing the provision of emergency medical services by ambulance suppliers in the region in which the Applicant proposes to implement the model.

Payer Strategy

1. If the Applicant proposes to align ET3 Model implementation with ambulance innovations available through additional payers, the Applicant must provide:

    i. A description of its multi-payer alignment strategy, including proposed payers, a timeline for implementing payment of EMS innovations aligned with the ET3 Model in each proposed payer, and a plan for identifying patient eligibility to receive services through the model. To the extent that the Applicant has identified specific payers with which it proposes to partner, the Applicant should provide copies of letters of intent signed by an individual with the authority to bind the proposed payer that identify the legal names, alternate names, if applicable (e.g., "Doing Business As" name); and correspondence addresses of each potential

payer and a description of each proposed payer's capacity to align with the ET3 Model; and,

ii. An overview of how interventions in partnership with non-Medicare Fee for Service payers would differ from ET3 interventions.

2. If an Applicant proposes to implement the model in Medicare FFS only, the Applicant should explain how it will operationalize its proposed intervention design in that context, including how the Applicant will identify Medicare FFS beneficiaries by coverage status.

Patient-Centered Design

1. Describe how the Applicant's current patient-centered design policies are aligned with, or will become aligned with, the proposed ET3 intervention design. Policies should:

2. Demonstrate the Applicant's ability to engage beneficiaries and their families and/or caregivers in shared decision-making, taking into account patient preferences and choices, including, , as applicable, the provision of the Advanced Beneficiary Notice of Non-Coverage" (ABN, Form CMS-R-131) to the beneficiary or the beneficiary's designated representative. Additionally, the plan should address the needs of beneficiaries and their families and/or caregivers with limited English proficiency, low or limited health literacy, and communication disorders or other communication challenges, within the context of shared decision-making during a 911-initiated emergency ambulance response; and

3. Propose mechanisms that the Applicant will use to inform and educate patients about model interventions at the scene of a 911-initiated emergency ambulance response.

APPENDIX A: GLOSSARY

Term	Definition
Alternative destination site	In the ET3 Model, an entity that serves as a destination to which model Participants may transport a beneficiary who meets medical necessity requirements. An alternative destination site must have sufficient Medicare-enrolled physicians or other practitioners to meet the needs of Medicare FFS beneficiaries who require services through the model. Alternative destination sites are alternatives to a hospital emergency department (ED) or other destination traditionally covered by Medicare. Examples of allowable alternative destinations under the model may include federally-qualified health centers, physician offices, behavioral health centers, or urgent care centers.
Applicant	An ambulance supplier or hospital-based ambulance provider that is in the process of applying to the ET3 Model or has submitted an application but which has not yet received a final selection determination from CMS.
Application Programming Interface (API)	Technology that allows one software program to access the services provided by another software program.
Ambulance supplier and provider	In the ET3 Model, an ambulance service supplier or hospital-owned ambulance provider that operates subject to community-wide EMS protocols. Only Medicare-enrolled ambulance service suppliers and providers are eligible to apply to become model Participants.
County or Equivalent Entity	A county is the primary legal subdivision of most states. The ET3 Model treats the following entities as equivalents of counties: • The District of Columbia • Parishes in Louisiana • Boroughs, city and boroughs, municipalities, and census areas in Alaska • Municipios in Puerto Rico • A city in Maryland, Missouri, Nevada and Virginia that is independent of any county and considered a primary legal subdivision of that state
Distant site (telehealth)	The site at which the physician or practitioner is located when furnishing a Medicare telehealth service. *See* 42 C.F.R. §410.78(a)(2).

Term	Definition
EMS professional	An individual member of the vehicle staff of an ambulance service supplier or provider, such as an emergency medical technician or paramedic, who meets the requirements of state and local laws where the ambulance services are being furnished.
FHIR (Fast Health Interoperability Resources Specification)	HL7 Fast Health Interoperability Resources Specification (FHIR®) is a standard for health care data exchange. More information about FHIR is available on HL7's website, and information on resource bundling is available here.
JSON (JavaScript Object Notation)	An open-standard file format uses human-readable text to transmit data objects consisting of attribute-value pairs and array data types (or any other serializable value).
Learning System	A health care system designed to generate and apply the best evidence for the collaborative health care choices of each patient together with his or her health care provider; to drive the process of discovery as a natural outgrowth of patient care; and to ensure innovation, quality, safety, and value in health care.
Originating site (telehealth)	The location of an eligible Medicare beneficiary at the time a Medicare telehealth service is furnished. *See* 42 C.F.R. §410.78(a)(4).
Participant	An ambulance service supplier or hospital-based ambulance provider that is selected to participate in the ET3 Model based on its responses to the model Request for Applications and signs a Model Participation Agreement. Model Participants are eligible for Medicare payments for model innovations, including transport to alternative destinations and treatment in place.
Performance Period of the Model	The performance period of the model is expected to begin on January 1, 2020 and end on December 31, 2024.
Medicare Fee-for- Service (FFS)	Medicare Part A and Part B. The term Medicare FFS does not include Medicare Part C (Medicare Advantage) or Medicare Part D (Prescription Drug Benefit).
Model Region	The county or counties in which a Participant implements the ET3 Model. Participants must provide Medicare-covered emergency ambulance services to Medicare FFS beneficiaries within all counties of the model region during the Model performance period.

Term	Definition
Multi-payer alignment	Implementation of ET3 Model interventions across multiple payers in addition to Medicare Fee for Service (FFS). Additional payers could include Medicaid FFS or managed care plans, Medicare Advantage plans, commercial insurance plans, or other payers. Model Participants will be selected in part based on their capacity to engage multiple payers.
NEMSIS	The National Emergency Medical Services Information System (NEMSIS) is a national database that is used to store EMS data from the U.S. States and Territories. NEMSIS is a universal standard for how patient care information resulting from an emergency 9-1-1 call for assistance is collected. NEMSIS is a collaborative system to improve patient care through the standardization, aggregation, and utilization of point of care EMS data at a local, state and national level. More information about NEMSIS is available on its website.
Non-Business Hours	In the ET3 Model, the hours between 8:00pm and 8:00am.
Non-Participant Partner	A CMS-approved qualified health care practitioner (see Glossary entry below) or an alternative destination site (see Glossary entry above) that partners with the Participant to furnish services to a Medicare beneficiary through the ET3 Model, and has entered into a voluntary agreement with a Participant that satisfies all of the applicable requirements of the ET3 Model Participation Agreement.
Qualified health care practitioner	A Medicare-enrolled health care practitioner who meets state, local, and professional requirements to render particular health care services to beneficiaries; or, a Medicare-enrolled group practice that includes such practitioners. The qualified health care practitioner must enter into a voluntary agreement with a Participant to render such services through the ET3 Model. In a circumstance in which the Participant proposes to partner with a group practice for the treatment in place intervention, the agreement with the group practice must be with the TIN-Level Entity. Only qualified health care practitioners may provide treatment in place in the ET3 Model.
Telehealth Service	In the ET3 Model, a covered health care service included on the telehealth list furnished by an approved qualified health care practitioner using an interactive telecommunications system that meets Medicare requirements, including, at minimum, audio and video equipment permitting two-way, real-time interactive communication between the patient and distant site physician or practitioner. Telephones, facsimile machines, and electronic mail systems do not meet the definition of an interactive telecommunications system.

Term	Definition
Treatment in place	In the ET3 Model, a non-transport intervention, facilitated by model Participants, which may include: (1) telehealth services rendered by a qualified health care practitioner located at a distant site or(2) in-person services rendered by a qualified health care practitioner at the scene of the 911 emergency response
XML (Extensible Markup Language)	A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

APPENDIX B: LEARNING SYSTEM STRATEGY AND STRUCTURE

The Innovation Center will design, implement, and manage a learning and diffusion system tailored to the needs of ET3 Model Participants. Adult learning theory and the science of improvement will undergird the learning strategy. In general, the system aims to improve and accelerate Participants' success in the model through an information-sharing and training platform guided by Participants' needs. This system will:

- Help ambulance suppliers and providers and other partners (e.g. qualified health care practitioners, alternative destinations, 911 dispatch systems, states and local governments) identify and propagate best practices rooted in actual needs;
- Relay and incorporate feedback from model Participants to improve their progress in the model;
- Facilitate active collaboration to build learning communities and networks among Participants; and,
- Impart targeted activities, technical assistance, and training to model Participants and state Medicaid programs that are partnering with Participants to promote scale and spread, as well as encourage multi-payer alignment with the model.

Medicare-enrolled ambulance suppliers and providers primarily limit their engagement across the health care system to hospitals and the transportation services they provide. Through the ET3 Model, the roles of Participants will evolve with respect to both health care providers and care settings, as well as to beneficiaries. This expectation for innovation and development of new procedures, relationships, and experiences provides a critical opportunity for learning that the ET3 Model will utilize strategically for model success.

Learning and Diffusion Benefits

This forum lays the foundation for strong and durable partnerships by placing relationships at the forefront and helping to manage the complexity of model development and implementation. The learning and diffusion system will strengthen the model's ability to empower ambulance suppliers and providers and their partners (e.g. qualified health care practitioners, alternative destinations, 911 dispatch systems, states and local governments) in developing and implementing innovative approaches. By facilitating communication and creating a forum to identify Participants' needs from their point of view, the learning system will package new knowledge and practices, capture lessons learned, best practices, and challenges. In so doing, the learning system will bolster the model's ability to innovate and improve care practices. And as Participants implement the ET3 Model, the learning system can serve as a forum for Participants to assist each other with their organizational changes, factors involved in successful implementation of a medical triage line, and improve overall success of the model. Further, state Medicaid participation in the model will allow the system to offer them enhanced support and activities in order to promote scale and spread model impact. The learning and diffusion system will help address Participants' challenges related to:

- Model and implementation;
- Relationship-building with new entities across the health care system;
- Multi-payer alignment;
- Person-family engagement concepts; and,
- Data and information-sharing.

Learning and Diffusion System Structure

Participants must take part in the learning and diffusion system as a condition of their agreement with the Innovation Center. The model structure, with its partnerships between ambulance suppliers and providers, qualified health care practitioners, alternative destination sites, local governments, and state Medicaid adds complexity to the learning system, necessitating assistance for individual Participants, as well as shared learning system events and curriculum. To optimize effectiveness of the proposed Medicare payments, the learning system can also provide targeted activities to state Medicaid programs to address barriers to payment development and implementation, and technical assistance for state plan amendment creation and other relevant needs (including scope of practice and other state-level issues that are key to successful model implementation).

Identify and Package New Knowledge and Practices

Tools such as a change package,[13] toolkit, and other supporting materials further the identification of innovative tactics and dissemination of those tactics to improve and accelerate care delivery and operations. Other examples include:

- Interviews with state Medicaid programs to identify payment alignment development and implementation needs and barriers
- Site visits by CMS and contractors to study and document positive results as well as offer strategies for overcoming challenges;
- Case studies, which may include identifying, acknowledging, and studying high performers to further understand their lessons learned, barriers overcome, and best practices; and,
- Dissemination of the packaged knowledge and practices via newsletters, email blasts, FAQs, etc.

Information captured through this process will guide activities of the EMS learning and diffusion system, inform model design, and allow for integration of model monitoring and evaluation activities.

Leverage Data and Awardee Input

A well-functioning learning and diffusion system works to assure that learning and improvement occur continuously and that ambulance service suppliers or others engaged in the model (e.g. qualified health care practitioners, alternative destination sites, 911 dispatchers, state and local governments, etc.) actively and continuously analyze their performance against the aims of the model. The use of CMS and other data for improvement supports Participants in analysis, interpretation, and action. It also gives the model team insight into Participant experience to guide iteration and continuous improvement in the content, display, and delivery of that data. Examples include: monitoring data, intervention data, dashboards to share frequent feedback with ambulance suppliers and providers and partners, Participant reports, collaboration site engagement reports, office hours, needs assessments, and interim surveys.

Build Learning Communities and Networks

Multiple modalities will be developed and are expected to facilitate peer-to-peer exchange of promising practices and to motivate action. These learning communities seek to build effective networks and use action-oriented collaboration and sharing of ideas to facilitate organizational change and improvement. An “all teach, all learn” approach to collaborative learning will be applied to all activities to support sharing and diffusion of promising practices among ET3 Model Participants. Relevant activities may include:

- Using results from needs assessments and interviews to develop a list of topics and priorities for the learning system (topics may be structured as model-wide (e.g. beneficiary engagement), or very

[13] A change package is a set of evidence-based recommended changes that are critical to the improvement of an identified care process.

specific (e.g. development of state plan amendments), will depend on Participant needs as they evolve over the five-year model); In-person and virtual meetings;

- Topic-specific webinars with faculty experts providing an in-depth curriculum related to patient and family engagement, telehealth, partnering with alternative destination sites, etc.; and
- Affinity groups based on common characteristics (e.g., suppliers located in the same state, state Medicaid programs addressing state-level barriers to model implementation, etc.).

APPENDIX C: POTENTIAL MEASURES FOR PERFORMANCE-BASED PAYMENT

Table 5. Potential Measures for Performance-Based Payment

Measure	Data Source
ED visit/IP admission within 72 hours of (1) transport to alternative destination; (2) or provision of services through treatment in place intervention	Claims
Total ED Utilization	Claims

APPENDIX D: MEDICARE FFS EMERGENCY TRANSPORT VOLUME BY STATE AND COUNTY OR EQUIVALENT ENTITY

Methodology: To create the county-level volume estimates made available to Applicants, CMS used claims data for ambulance suppliers and providers from the Integrated Data Repository (IDR). All ALS and BLS emergency ground ambulance claims (HCPCS A0427, A0429, A0433) within the IDR for services rendered to Medicare FFS beneficiaries in 2017 were identified. For each claim, CMS identified the ZIP code with that point of pickup for all claims. These ZIP codes were then matched to a single state (or territory) and county (or county-equivalent entity) using Federal Information Processing Standard (FIPS) codes. This county information was then summed across all claims, resulting in county-level totals. Counties where claims totaled less than 10 were excluded from the report.

Please see the ET3 Website for a list of county-level estimates:
https://innovation.cms.gov/initiatives/et3/

APPENDIX E: ET3 ORGANIZATIONAL INFORMATION

I. ET3 Applicant Information (Required for All Applicants to the ET3 Model)

A. Applicant Organizational Information[14]

1. Legal Business Name of Applicant, as reported to the Internal Revenue Service
2. Additional Name(s) (i.e., "Doing Business As"/DBA Name), if applicable:
3. Correspondence Address (Street Address, City, State, and Nine-Digit ZIP Code)
4. Applicant's National Provider Identifier (NPI) number:
5. Applicant's Provider Transaction Access Number (PTAN), if available, for Applicants enrolled in Part B:
6. Applicant's CMS Certification Number (CCN), for Applicants enrolled in Part A:
7. Does the Applicant confirm that all information in the Medicare Provider Enrollment, Chain, and Ownership System (PECOS) is accurate and up-to-date as of the submission of its responses to this RFA?
   a. If yes, Applicant should proceed to Section I.B.
   b. If no, Applicant must update PECOS information before proceeding with the ET3 RFA submission.

B. Applicant Contact Information[15]

1. First Name:
2. Last Name:
3. Title/Position:
4. Relationship to the Applicant Organization:
5. Correspondence Address (Street Address, City, State, Nine-Digit ZIP Code)
6. Telephone Number:
7. E-mail Address:

II. Proposed Alternative Destination Sites – Non-Medicare Enrolled Entities

- Each Applicant that has identified one or more specific alternative destination site(s) or qualified health care practitioner(s) at the time it submits its response to this RFA must submit a letter or letters of intent that meet the requirements set out in Section VII, Applicant Selection Criteria.
- All qualified health care practitioners in the ET3 Model must be enrolled in Medicare and approved in advance by CMS.
- All alternative destination sites must be approved in advance by CMS. If the Applicant has identified in its response to this RFA one or more alternative destination site(s) that is <u>not</u> a Medicare-enrolled provider or supplier, it must provide all of the following information about the proposed site in the letter of intent:

    1. Legal Business Name of proposed alternative destination site, as reported to the Internal Revenue Service

[14] Note: Information provided in response to Section I.A should be about the entity applying to become an ET3 Model Participant

[15] Note: Note: Information provided in response to Section I.B should be about the individual filling out the ET3 Model application.

2. Additional Name (i.e., “Doing Business As”/DBA Name), if applicable
3. Type of entity:
    a. Physician Office
    b. Urgent Care Center
    c. Federally Qualified Health Center
    d. Other Independent Clinic
    e. Other (specify)
4. Taxpayer Identification Number (TIN)
5. National Provider Identifier (NPI) Number
6. Correspondence Address (Street Address, City, State, Nine-Digit ZIP Code)
7. Existing and/or past State License Number (if any) and State that Issued License
8. Identify the proposed alternative destination site’s current organizational structure
    a. Sole Proprietorship
    b. Corporation
    c. Limited Liability Company
    d. Partnership
    e. Other (Specify)
9. Does the alternative destination site have a governing board?
    a. If no, indicate here, and proceed to Question 9.
    b. If yes, for each member of the board, provide:
        i. Name (First Name, Last Name, Middle Initial and Titles (Sr., Jr., etc.)):
        ii. Date of Birth (MM/DD/YYYY)
        iii. Enrollment State or Equivalent, if applicable
        iv. NPI, if issued
        v. Social Security Number
10. Does one or more individuals have managing control, a partnership interest, or a 5% or greater direct or indirect ownership interest in the alternative destination site entity:
    a. If no, indicate here.
    b. If yes, for each individual that has managing control, a partnership interest, or 5% or greater direct or indirect ownership interest in the Applicant entity:
        i. Name (First Name, Last Name, Middle Initial and Titles (Sr., Jr., etc.)):
        ii. Date of Birth (MM/DD/YYYY)
        iii. Enrollment State or Equivalent, if applicable
        iv. NPI, if issued
        v. Social Security Number

ATTACHMENT D

Ground & Air Medical Quality Transport (GAMUT) Metrics

FITCH
& ASSOCIATES

1) Ventilator use in patients [1] with advanced airways **This metric will be categorized by age into the following 3 categories (neonatal defined as infants <29 days, pediatric defined as patients age 29 days to <18 years, and adults defined as age 18 or older). This metric is reported as "Percent of patient transport contacts with an advanced airway[2] supported by a mechanical ventilator.**	NUMERATOR: Number of transport patient contacts during the calendar month involving a patient with an advanced airway[2] supported by a mechanical ventilator. DENOMINATOR: Number of transport patient contacts during the calendar month involving a patient with an advanced airway[2.] Metric differentiated amongst neonatal, pediatric, adult patient contacts
2) Scene and bedside times for STEMI activation **This metric is reported as "Average (mean) bedside time and average scene time (min) for STEMI activation patients."**	*STEMI patients are defined as those patients with ST segment elevation by ECG and those patients with STEMI activations initiated by the referring facilities or the transport team itself.* AVERAGE TIME: (Arithmetic mean in minutes rounded up) for the following intervals: **A. From initial bedside patient contact by the transport team to departing bedside with the patient en route to transport vehicle** NUMERATOR: Sum of bedside times (in minutes) for all transport patient contacts with STEMI activations DENOMINATOR: Number of transport patient contacts with STEMI activations. **B. From initial scene arrival by the transport team to departing the scene with the patient en route to transport vehicle (i.e., "skids down/skids up" or "ground arrival/departure").** NUMERATOR: Sum of scene times (in minutes) for all transport patient contacts with STEMI activations. DENOMINATOR: Number of transport patient contacts with STEMI activations.
3) Unintended neonatal hypothermia **This metric is reported as "Percent of transported neonates hypothermic upon admission."**	NUMERATOR: The number of neonates (infants less than 29 days) with admission temperatures at the destination facility less than 36.5 axillary (excluding those being intentionally cooled, either actively or passively) DENOMINATOR: Number of neonates transported during the calendar month.

4) Blood glucose check for altered mental status **This metric is reported as "Percent of patient transport contacts with altered mental status or focal neurologic deficit with a documented blood glucose check."**	NUMERATOR: Number of patient transport contacts with GCS < 15 (or focal neurologic deficit with suspicion of stroke) at the time of initial transport evaluation that have a documented blood glucose check. A blood glucose check includes those checks by the transport team or prior to transport team arrival if reviewed and documented by the transport team. DENOMINATOR: Number of patient transport contacts with GCS <15 or neurologic deficit (at the time of initial transport evaluation) during the calendar month.
5) Waveform capnography ventilated patients. **This metric will be categorized by age into the following 3 categories (neonatal defined as infants <29 days, pediatric defined as patients age 29 days to <18 years, and adults defined as age 18 or older). This metric is reported as "Percent of patient transport contacts with advanced airways[2] in whom continuous waveform capnography was used."**	NUMERATOR: Number of patient transport contacts with an advanced airway[2] for whom waveform capnography is initiated and/or maintained throughout transport by the transport team. Waveform capnography is defined as a quantitative, graphical, and real time measurement of the partial pressure of CO_2 in each exhalation. DENOMINATOR: Number of transport patient contacts during the calendar month involving a patient with an advanced airway[2].
6) First attempt tracheal tube (TT) success **This metric will be categorized by age into the following 3 categories (neonatal defined as infants <29 days, pediatric defined as patients age 29 days to <18 years, and adults defined as age 18 or older). This metric is reported as "Percent of patient transport contacts successfully intubated on the 1st attempt by the transport team."**	NUMERATOR: Number of patient transport contacts with successful TT placement during the 1st intubation attempt by the transport team. First-attempt success should not be disqualified by necessary adjustments to the depth of the TT and re-securing it. DENOMINATOR: Number of patient transport contacts undergoing intubation by the transport team during the calendar month. *An attempt is defined as the insertion of a laryngoscope or the insertion of any bougie or airway device (e.g. TT or LMA) past the lips.*

7) DASH 1A- Definitive airway "sans" hypoxia/hypotension on first attempt **This metric will be categorized by age into the following 3 categories (neonatal defined as infants <29 days, pediatric defined as patients age 29 days to <18 years, and adults defined as age 18 or older). This metric is reported as "Percent of patients with definitive airway during the 1st attempt by the transport team without suffering hypoxia or hypotension."**	NUMERATOR: Number of patient transport contacts with successful advanced airway[2] device placement (TT/cricothyrotomy tube/supraglottic airway) during 1st airway attempt by the transport team WITHOUT associated hypoxia or hypotension. An attempt is defined as the insertion of a laryngoscope, the insertion of any bougie or advanced airway device[2] (e.g. TT or LMA) past the lips, or the touching of scalpel or other "cric" instrumentation to the neck. Hypoxia is defined as oxygen saturation newly falling below 90%. Hypotension is defined as systolic blood pressure in adults < 90 mm Hg and SBP <5th percentile in children < 17 years of age.[3] DENOMINATOR: Number of patient transport contacts undergoing an airway attempt by the transport team during the calendar month.
8) Verification of TT placement **This metric is reported as the "Percent of intubated patient transport contacts with documentation of confirmed tracheal tube placement."**	NUMERATOR: The number of patient transport contacts of patients with tracheal tubes, regardless of whether or not the transport team placed them themselves, for which there is documentation confirming placement using capnography plus at least 1 of the following methods for TT confirmation: direct visualization, chest radiograph, or symmetric breath sounds. DENOMINATOR: Number of patient transport contacts with tracheal tubes during the calendar month.
9) Over-triage in mode of transportation **This metric is reported as the "Percent of the HEMS patient transport contacts discharged without hospital admission."**	NUMERATOR: The number of HEMS patient transport contacts involving patients discharged directly from the emergency department or not admitted to the hospital. Patients placed in observation (as an outpatient) in the emergency department are included in the numerator. Patient deaths during transport or in the emergency department prior to admission are excluded from the numerator. DENOMINATOR: The number of HEMS patient transport contacts during the calendar month.
10) Medication errors on transport **This metric will be converted to and reported as a "Rolling 12 month medication error rate per 10,000 patient transport contacts."**	NUMERATOR: The number of documented medication administration errors (may be more than 1 per transport) during any transport patient contact. A medication error typically violates one or more of the "7 Rights;" right patient, right drug, right dose, right route, right time, right technique, right documentation. There may be more than one medication error during a single patient transport contact and each of those should be included separately. DENOMINATOR: Number of patient transport contacts during the calendar month.

11) Rapid Sequence Intubation protocol compliance **This metric is reported as "Percent of patient transport contacts undergoing RSI where all indicated elements of the program's RSI protocol were completed."**	NUMERATOR: Number of patient transport contacts where ALL indicated elements of a program's Rapid Sequence Intubation/Induction (RSI) protocol were completed. DENOMINATOR: Number of patient transport contacts that received advanced airway[2] management by the transport team and met inclusion criteria for use of the RSI protocol during the calendar month.

12) Appropriate management of blood pressure for aortic emergencies **This metric is reported as "Percent of patient transport contacts with known or suspected aortic dissection receiving indicated blood pressure and heart rate therapies."**	NUMERATOR: Number of patient transport contacts with known or suspected aortic dissection with heart rates less than 60 beats per minute and systolic blood pressures less than 120 mm Hg OR documented interventions during transport aimed at achieving these parameters. DENOMINATOR: Number of patients transported with known or suspected aortic dissection in the calendar month.
13) Unplanned dislodgements of therapeutic devices **This metric is reported as "Unplanned dislodgements of therapeutic devices per 1000 patient transport contacts."**	NUMERATOR: The number of documented unplanned dislodgements (may be more than 1 per transport) while under the care of the transport team of the following devices (IOs, IVs, UACs/UVCs, central venous lines, arterial lines, advanced airway[2], chest tubes, and tracheostomy tubes). This does not include IVs that infiltrate without obvious dislodgement. DENOMINATOR: Number of transport patient contacts during the calendar month.
14) Rate of Serious Reportable Events (SREs) **This metric will be converted to and reported as a "Rolling 12 month SRE rate per 10,000 patient transport contacts."**	NUMERATOR: The number of SREs during the calendar month. An SRE is defined as any unanticipated and largely preventable event involving death, life-threatening consequences, or serious physical or psychological harm. Qualifying events include but are not limited to the National Quality Forum's Serious Reportable Events available at http://www.qualityforum.org/Topics/SREs/List_of_SREs.aspx. DENOMINATOR: All patient transport contacts during the calendar month.

15) Incidence of hypoxia during transport **This metric is reported as "Percent of patient transport contacts experiencing transport-related hypoxia."**	NUMERATOR: Number of patient transport contacts during which the documented pulse oximetry reading drops below 90%. Multiple incidents with one patient are considered as one incident. If the pulse oximetry reading is chronically low or is below 90% when contact is made, the patient is not included except for those patients where the saturation has been corrected to greater than 90% and falls again. DENOMINATOR: Number of patient transport contacts during the calendar month (excluding those with chronic oxygen saturations lower than 90% or oxygen saturations lower than 90% that persist throughout the entire transport).

16) Management of hypertension in hemorrhagic stroke **This metric is reported as "Percent of transport patient contacts with hemorrhagic stroke and appropriate blood pressure management."**	NUMERATOR: Number of known hemorrhagic stroke transport contacts with goal systolic blood pressure (SBP) less than 160 (OR 20% less than initial MAP for initial SBP greater than 200) at transfer of care to the receiving hospital. Hemorrhagic stroke is defined as non-traumatic, intraparenchymal hemorrhagic bleed identified on CT or MRI. DENOMINATOR: Number of known hemorrhagic stroke patient transport contacts during the calendar month.
17) ECG interpretation for STEMI patients **This metric is reported as "Percent of transport patient contacts with accurately interpreted 12-lead ECG evaluations."**	NUMERATOR: Number of 12-lead ECGs in transport patient contacts with possible cardiac ischemia correctly evaluated for STEMI by the transport team as confirmed by the interpreting physician. Administrative/Medical Director review may substitute for receiving physician review in instances where the receiving physician interpretation is not documented. DENOMINATOR: Number of 12-lead ECGs in transport contacts assessed by the transport team for evaluation of possible cardiac ischemia during the calendar month.
18) Appropriate management of hemorrhagic shock **This metric is reported as the "Percent of patient transport contacts with hemorrhagic shock appropriately managed."**	NUMERATOR: Number of patient transport contacts with hemorrhagic shock in which 1) hemorrhage control measures are initiated if applicable, 2) IV administration of blood products if available, and 3) IV fluid resuscitation meeting the following: 1. Signs of adequate tissue perfusion, or 2. SBP >= 70+ 2 x age (yrs) or >=90 mmHg or MAP >65 3. Maximum of 2 liters in adults or 40 mL/kg in children <16 years of age. DENOMINATOR: Number of patient contacts with hemorrhagic shock during the calendar month. Hemorrhagic shock is defined as hypovolemic shock resulting from confirmed or suspected hemorrhage with clinical signs of hypoperfusion.

19) Medical equipment failure **The metric is reported as "Medical equipment failures per 1000 patient transport contacts."**	NUMERATOR: The number of documented medical equipment failures (may be more than 1 per transport) while under the care of the transport team. Examples include IV pumps and ventilators that malfunction during transport, broken monitor leads, empty medical gas tanks, etc. DENOMINATOR: The number of transports during the calendar month.
20) Adverse drug event during transport **The metric is reported as "Adverse drug events per 1000 patient transport contacts."**	NUMERATOR: Number of patient transport contacts for which there is documentation of an unanticipated drug related event during transport. Adverse drug events (ADEs) are defined as any injuries resulting from medication use, including physical harm, mental harm, or loss of function. DENOMINATOR: Number of patient transport contacts during the calendar month
21) Patient near-miss or precursor adverse events **This metric is reported as a "Rolling 12 month transport-related patient mishap rate per 10,000 patient transport contacts."**	NUMERATOR: The number of documented transport-related patient near-misses or patient precursor adverse events. Near-miss events are defined as deviations from generally accepted performance standards that occurred but did not "reach" the patient, perhaps because the error was caught. Precursor adverse events are deviations from generally accepted performance standards that reach the patient but result in no harm or minimal, temporary patient harm. Excluded are injuries and deaths related to the medical/surgical conditions themselves. Examples include patient falls, loose pieces of transport equipment that fall and strike a patient, injuries suffered in a transport vehicle accident, etc. DENOMINATOR: The number of patient transport contacts during the calendar month
22) Reliable pain assessments **The metric is reported as "Percent of patient transport contacts with a documented pain assessment."**	NUMERATOR: Number of patient transport contacts with documented pain assessments using age-appropriate pain scales DENOMINATOR: Number of patient transport contacts during the calendar month.
23) Average mobilization time of the transport team **This metric is reported as "Average (mean) mobilization time for all unscheduled transports during the calendar month."**	The average time (includes all transports in the calendar month, excluding transports scheduled in advance and patient transports out of the originating facility) in minutes (rounded up to nearest minute) from the start of the referral phone call to the transport team to the time the transport team is en route to the referral facility. "Stacked" trips or transports right after the last during which the team never returns to base should be included in this count.

24) Rate of transport-related patient injuries **This metric is reported as a "Rolling 12 month transport-related patient injury rate per 10,000 transports."**	NUMERATOR: The number of documented transport-related patient injuries or deaths. DENOMINATOR: The number of transports during the calendar month. Excluded are injuries and deaths related to the medical care itself or the omission of medical care. Examples include a patient fall, a loose piece of transport equipment that falls and strikes the patient, injury suffered in a transport vehicle accident, etc.
25) Rate of CPR performed during transport **This metric is reported as a "Rolling 12 month CPR rate per 10,000 transports."**	NUMERATOR: The number of transports during which chest compressions are performed from the time the transport team assumes care ("hands on") until the patient hand-off is completed at the destination facility. DENOMINATOR: The number of transports during the calendar month. Multiple episodes of chest compressions in a single transport should only be counted as one episode. If CPR is in progress when the team arrives, this should not be included in this count.
26) Rate of transport-related crew injury **The metric is reported as a "Rolling 12 month transport-related crew injury rate per 10,000 transports."**	NUMERATOR: The number of transport-related crew injuries or deaths reported to the institution's employee health department or equivalent during the calendar month. DENOMINATOR: The number of transports during the calendar month.
27) Use of a standardized patient care hand-off **This metric is reported as "Percentage of transports involving a standardized patient care hand-off."**	NUMERATOR: The number of transports for which there is documented use of a standardized hand-off procedure for turning over patient care at the destination hospital. DENOMINATOR: The number of transports during the calendar month.

1 In instances where a specialty team (i.e. neonatal or pediatric specialty team is being transported by the regional transfer service), it is the responsibility of the team providing patient care to report metrics data. (i.e., neonatal specialty team should report neonatal hypothermia rate for its transport service – not the non-specialty team who is providing transportation and complementing the specialty service)

2 Advanced airway is defined as a tracheal tube, laryngeal mask airway, esophageal-tracheal Combitube, tracheostomy tube, King Airway, cricothyroidotomy tube, or equivalent

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