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MEDSTAR MOBILE HEALTHCARE

BLUEPRINT FOR QUALITY

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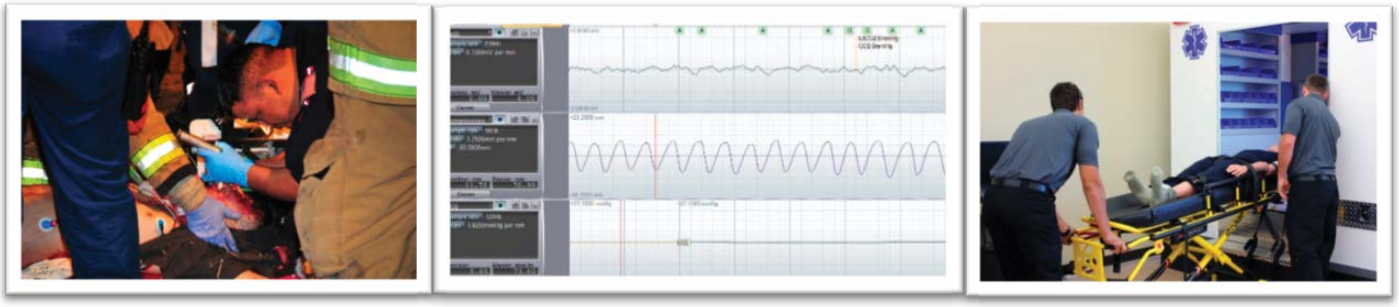

In an effort to provide effective, efficient, and meaningful medical direction and oversight, the OMD, in collaboration with MedStar leadership, has designed the Blueprint for Quality, a strategic proposal for achieving these goals. First, Credentialing – to directly address the EMS provider's knowledge of medical protocols, skills, and procedures to operate effectively under the Medical Director's license. Second, Quality Improvement – to ensure that, once credentialed, prehospital personnel continue to provide the highest quality medical care, whether from the first seconds of a 911 call to stabilization and hospital transfer, or during the integrated management of patients in their homes. Last, Training & Education – to foster a culture of critical thinking and evidence-based clinical decision-making through which the individual provider develops a range of sophisticated clinical and cognitive skills.

Credentialing

There are currently multiple levels of credentialing for EMT and paramedic providers throughout the system. This allows for different levels of care on-scene depending on which provider is assigned to a response. If, for example, a patient requests an EMS response for difficulty breathing, a range of treatment options may be employed based on the individual paramedic level of credentialing. Whereas a paramedic provider may be able to perform up through the application of continuous positive airway pressure (CPAP), higher credentialed providers can escalate to endotracheal intubation, while only a select few are, in turn, able to perform full rapid sequence intubation with pharmacologic induction and paralytic agents. This provides for a considerable degree of complexity both within the credentialing process and with regard to the operation and staffing of ambulances. There are, in fact, currently 15 different combinations of EMS providers that can serve as crew on a responding 911 unit.

Through the Blueprint, the current credentialing process is being streamlined into a simplified two-level model for 911 emergency medical scope of practice – *"Basic"* and *"Advanced."* This will ensure that a single, consistent, high level of care be provided for each and every response, as well as enable the more efficient use of standardized medical protocols and procedures. Advanced level providers will be expected to perform at the same high level of practice; similarly, Basic level providers will operate under one set of medical protocols, with a higher degree of professionalism and with less potential for error. Critical Care Paramedics will be credentialed at a third level to account for their role in critical care inter-facility transports, as well as to support Basic and Advanced 911 response.

Quality Improvement (QI)

Under the current system, QI is primarily focused on sentinel event reporting. While valuable, this approach does not provide for optimal system-wide monitoring and clinical performance measurement. Furthermore, evolving clinical operations, including for special events and community–based programing, necessitates a more defined approach to medical direction and oversight.

In order to benchmark current clini-

cal performance and to develop a comprehensive dashboard for future system performance measurement and improvement, a series of system diagnostics are being designed, implemented, and analyzed. These benchmarks incorporate a variety of metrics and measures to evaluate clinical performance, as well as optimize the critical interface between clinical care and system operations. While there are currently limited national evidence-based performance measures for EMS operations and clinical care, there are a few Key Performance Indicators (KPIs) which reflect opportunities for improvement based on evolving evidence, namely, cardiac arrest management (chest compression rate, depth, etc.), advanced airway management (success rate, objective confirmation with end-tidal CO2), and chest pain/myocardial infarction management (EMS arrival to EKG, aspirin administration, STEMI alert activations).

Sentinel event based reporting will continue, but it will be embedded in a more comprehensive and consistent process for system-wide monitoring and timely feedback to providers.

Training & Education

Entry-level credentialing and maintenance of provider knowledge and skill requires a foundation of meaningful and effective Training and Education. Traditionally, most providers enter service with previous certification or licensure, and their entry-level training focuses largely on system operational elements - the assumption being that Basic and/or Advanced level knowledge and skills proficiency have already been established. Similarly, ongoing training and education initiatives typically address new skills and procedures, while continuing medical education efforts focus primarily on recertification requirements as well as knowledge enhancement.

To ensure a culture of critical thinking and evidence-based clinical decision-making, attention must be focused on developing a range of more sophisticated clinical and cognitive skills, something that requires the collaborative and cohesive interplay between Credentialing, Training and Education, and QI.

The current new-hire curriculum is being restructured to ensure that providers have a ready repertoire of cognitive skills from which to form differential diagnoses and thereby exercise critical thinking and evidence-based clinical decision-making. In similar fashion, the Field Training Officers will soon be undergoing enhanced training and evaluation for their own protocol knowledge and critical thinking skills, as well as for their ability to function effectively as clinical educators. In addition, a comprehensive field-training manual and clinical evaluation tool has been developed to train and measure optimal skills competency, equipment proficiency, patient care management, and critical thinking.

To further ensure individual and agency-wide accountability on an ongoing basis, a system is being implemented for annual knowledge and skills verification, including establishment of clinical performance benchmarks for individual providers - the purpose being to identify any opportunities for remediation or reeducation.

Finally, to address continuing education needs, a multi-faceted program is being instituted, with a quarterly case-based Grand Rounds and lecture series, as well as the accountable use of an on-line learning management system, and patient simulation and cadaver procedural labs.

Summary

The Blueprint for Quality seeks to optimize system clinical performance through effective Medical Direction and Oversight. Utilizing a phased-in, multidisciplinary approach, it will initially focus on Credentialing, Quality Improvement, and Training and Education. Implementation is currently underway, using collaborative, cross-functional teams made up of management and field staff from MedStar, participating First Responder Organizations, and the OMD. Current projected timelines aim for completed implementation by the New Year.

Since 1986, MedStar Mobile Healthcare (formerly MedStar Emergency Medical Services) has been the provider of 911 medical response to Fort Worth and fifteen adjacent cities in Tarrant County, covering 421 square miles and serving more than 880,000 residents. MedStar is operated as a Public Utility Model, governed by the Area Metropolitan Ambulance Authority (AMAA), and with clinical guidance provided through the Emergency Physicians Advisory Board (EPAB). The Tarrant County Medical Society serves an invaluable role in this system of oversight, with five seats on the EPAB designated for TCMS physician representatives. The Office of the Medical Director (OMD) is tasked by the EPAB to provide medical direction and oversight for MedStar and the network of participating 911 First Responder Organizations (FROs). This continuum of prehospital care has more recently been extended to include post-hospital discharge and hospital admission avoidance, thereby necessitating expansion of medical direction and oversight to more non-traditional realms of out-of-hospital care. The current system is now a patient-centered medical navigation service with clinicians, and not technicians, providing the highest quality out-of-hospital management across an entire spectrum of mobile healthcare.