Medical Control Board
Office of the Medical Director

Annual Report from the Medical Director
Operational & Fiscal Year July 2021 - June 2022

Report Structure

Continuing with this year's Medical Control Board/Office of the Medical Director (MCB/OMD) Annual Report, based upon feedback from key government and EMS system leaders in metropolitan Oklahoma City and Tulsa, the content is structured for efficient and purposeful review of key activities accomplished by MCB physicians, the Chief Medical Officers, and OMD professionals.

Medical Oversight Design

The **Medical Control Board** is established by the Emergency Physician Foundations of Oklahoma City (Western Division) and Tulsa (Eastern Division). The Medical Control Board is comprised of eleven physicians devoting volunteer service to the patients served by the EMS system for metropolitan Oklahoma City and Tulsa and to the dedicated men and women rendering emergency medical care as an Emergency Medical Dispatcher, Emergency Medical Technician (EMT), EMT-Intermediate, Advanced EMT, or Paramedic. By design, emergency physicians constitute all positions on the MCB with exception of one position designated to be filled by another physician medical specialist. The emergency physicians most typically represent the busiest emergency departments in the areas served by the EMS system. The following physicians served on the MCB during this operational and fiscal year:

Chad Borin, DO, FACOEP – St. Anthony Hospital (Oklahoma City)
Chair
Russell Anderson, DO– Hillcrest Hospital South (Tulsa)
Vice Chair
David Smith, MD – Integris Baptist Medical Center (Oklahoma City)
Secretary
Roxie M. Albrecht, MD, FACS, FCCM – Trauma Surgery/Surgery Critical Care (Oklahoma City)
Barrett T. Bradt, MD – Saint Francis Hospital (Tulsa)
David Gearhart, DO, FACOEP – Oklahoma State University Medical Center (Tulsa)
Jeffrey Johnson, MD, FACEP – Hillcrest Medical Center (Tulsa)
Karyn Koller, MD - University of Oklahoma Medical Center (Oklahoma City)
John Nalagan, MD, FACEP – Mercy Hospital (Oklahoma City)
Keri Smith, DO – Integris Southwest Medical Center (Oklahoma City)
Michael Smith, MD, FACEP – St. John Medical Center (Tulsa)

The MCB meets bimonthly to review a report from the President of the Emergency Medical Services Authority, a report from the Chief Medical Officers, standard of medical care advancements and/or revisions endorsed by the Chief Medical Officers, financial statements of the MCB/OMD, and new business brought before the MCB by any interested party.

The **Chief Medical Officer** is the day-to-day recognized clinical authority in the EMS system, serving as such between times the MCB is meeting. *Jeffrey M. Goodloe, MD, NRP, FACEP, FAEMS, LSSBB* is the Chief Medical Officer for all agencies receiving medical oversight from the MCB/OMD.

Beginning July 1, 2009, the MCB contracted with the Department of Emergency Medicine at the University of Oklahoma's School of Community Medicine for physician medical director services. Substantial benefits to the EMS system and its patients are achieved through this arrangement, bringing research and educational capabilities from the University of Oklahoma, its emergency medicine residency program, and its collegial network of medical professionals.

This year is Dr. Goodloe's thirteenth year as the Chief Medical Officer (formerly titled Medical Director) for the MCB/OMD. For familiarization purposes, his biography can be found at the MCB/OMD website, okctulomd.com.

The **Office of the Medical Director** is comprised of the following professionals:

Jeffrey M. Goodloe, MD, NRP, FACEP, FAEMS, LSSBB – Chief Medical Officer
Curtis L. Knoles, MD, FAAP – Associate Chief Medical Officer
David S. Howerton, NRP – Division Chief – Medical Oversight - West (Metro Oklahoma City)
Duffy McAnallen, NRP – Division Chief – Medical Oversight - East (Metro Tulsa)
Matt Cox, NRP – Division Chief - Critical Care Analytics

OMD professionals work daily to assist public safety agencies charged with emergency medical services responsibilities to fulfill those according to the clinical care standards established by the MCB. Medical outcomes determinations, individual medical care review, personnel education, personnel credentialing, equipment/vehicle performance review and inspection are just some of the myriad activities performed in support of excellence in pre-hospital emergency medical care.

All OMD division chiefs are particularly experienced and gifted clinicians and administrative leaders, guided by admirable work ethic. Each has served this and other EMS systems in a multitude of responsibilities, beginning with field service and progressing to their current oversight duties.

Philosophy of Medical Oversight

The provision of emergency medical services is more than public safety in metropolitan Oklahoma City and Tulsa; it is a practice of medicine delegated by the MCB's Chief Medical Officer to over 2,700 non-physician EMS professionals serving over 1.5 million residents, workers, and visitors of the affiliated cities.

Just as an individual has right to access an educated, qualified, and credentialed physician providing progressive medical care in times of illness or injury, it is incumbent the EMS system serving metropolitan Oklahoma City and Tulsa provide educated, qualified, and credentialed EMS professionals authorized to deliver the finest pre-hospital medical care available. When an individual in this service area experiences sudden, unexpected medical symptoms from relatively benign, though concerning pain, to the extreme severity of cardiopulmonary arrest, he or she can rest assured individuals answering the call for help will be trained and prepared to address the medical situation at hand. This cannot happen without up-to-date, progressive medical treatment protocols, accompanying education and training, and a comprehensive credentialing program.

Beginning July 1, 2009, the MCB/OMD committed to bringing its medical treatment protocols to new standards, unparalleled amongst large, urban EMS systems in the United States. Protocols were added, updated, and/or reformatted consistently at MCB meetings this year as summarized within this annual report. All MCB treatment protocols continue to follow the now MCB-recognized innovative, evidenced-based format. In other words, additional clinical capabilities and care are being added and provided for the patients needing those most. This commitment to excellence in pre-hospital emergency care reflects the drive and energy of the MCB, Chief Medical Officers, OMD professionals, leaders in affiliated fire departments and EMSA, and all field EMS professionals.

Throughout the operational year, these MCB treatment protocols continued to be referenced and indexed by benchmarking EMS systems within the United States and even abroad. The patients of this EMS system can continue to rest assured they are receiving the absolute best in pre-hospital emergency medical care.

Key Advances in Medical Treatment Protocols

EleGard® Head-Up CPR Device – approving utilization of the EleGard device to synchronize raising the head and upper thorax during CPR to a limit that optimizes cardio cerebral perfusion by preserving arterial flow and improving venous drainage from the cranial vault. Affirming research included in the FDA approval of the device supports an increase up to a relative 50%+ in neurologically intact survival from sudden cardiac arrest. (This device is being actively piloted in the EMS system in the Edmond Fire Department, though available to any agency wishing to include this latest advance in the EMS system's "bundle of care" for sudden cardiac arrest.)

Non-Invasive Positive Pressure Ventilation/Mechanical Ventilation – approving new ventilator equipment that allows for additional ventilatory support capabilities. Ability to extract and analyze clinical data from this generation device is also in development with the manufacturer towards mirroring the long-standing data extraction and analysis capabilities with ECG monitors/defibrillators used in the EMS system. These ventilators also allow for specialized pediatric patient applications in selected interfacility transports.

Field Amputation – approving an organized plan for field amputation when limbs are unable to be extricated from complicated industrial machinery or from structural collapses. This is based upon after action review of prior field amputations. This procedure works to activate highly specialized surgical resources, including surgeons themselves, from The University of Oklahoma Medical Center, specific to metropolitan Oklahoma City. With further training exercises based upon its content, a future version will be developed to include similar capabilities applicable to metropolitan Tulsa.

Blood Sample Collection by Law Enforcement Request – approving a new protocol for blood sample collection in optional assist to law enforcement. This protocol development was requested by the Oklahoma Highway Patrol. This protocol may serve as a basis for other EMS systems to adopt similar protocol. Of note, the protocol allows EMT-I, Advanced EMT, or Paramedic scope of practice personnel to obtain blood samples but does not compel them to do so. Additionally, patients must consent to the blood draw and cannot be forced to have blood

draw by EMS personnel on scene or enroute to the hospital. Any consented blood draw must not delay time-sensitive medical care.

Categorization of Hospitals – updating clinical care capability additions at multiple hospitals in the metropolitan Oklahoma City and metropolitan Tulsa areas.

MCB/OMD Administrative & Clinical Policies

Historically, most administrative actions of the MCB/OMD prior to July 2009 had been "management by memo" in structure. Over time as the EMS system grew and structure, those memos proved difficult to track, confusing in intent, dated in instruction, and while unintentional, contradictory in direction. In efforts to be more transparent in operation, clearer in administrative and clinically-related expectations, and to better support field professionals, the Chief Medical Officer specified creation of an MCB/OMD Policy and Procedural Manual in the 2009 – 2010 operational and fiscal year to accompany the Medical Treatment Protocols. Like the treatment protocols, this continues to prove a multi-year project due to scope and nature of always advancing the practice of EMS medicine and its oversight. During this operational year, the MCB/OMD policies & procedures were reviewed, updated and available on the MCB/OMD website and redesigned smartphone and tablet app.

Personnel Credentialing – This policy was updated to support dynamic staffing changes at EMSA to better meet the needs of communities and citizens served in light of increasing requests for EMS care via 9-1-1, increasing efficiency challenges across the spectrum of hospitals in metropolitan Oklahoma City and Tulsa, which in turn lead to increases in hospital/ED-initiated delays in acceptance of care from EMS professionals once arrived with the patient at the hospital, particularly in the ED. These delays are undesirable for all and reflect the unfortunate coupling of ever-increasing health care needs of citizens, some pandemic-related and many due to entirely other illness and injury, with the ever-challenging recruitment and retention of healthcare professionals, both in EMS and in hospital-based care.

Salient changes in this policy allowed for front-line emergency medical dispatchers to be emergency medical responders, thus increasing the pool of potential hires, with retained requirements to be an emergency medical technician if promoting to lead emergency medical dispatcher or higher post within the medical communications centers.

The creation of a new credential, non-911 Basic Life Support (BLS) EMT, allowed for employment of EMTs specific to non-911 ambulance duty, such as hospital discharge transport to home/nursing home or providing ground transport to aviation medical teams (fixed wing or rotor wing) when such aviation medical teams remain in primary care duty to their patients. The 911 BLS EMT credential was then specified for EMTs with a minimum of six months ALS ambulance assignment experience at EMSA. This 911 BLS EMT credential is created in parallel with the 911 BLS Ambulance Program at EMSA, using dual EMT-staffed ambulance for very select calls predicted to involve lower acuity of illness and/or injury that can be managed optimally within the EMT scope of practice as defined within the MCB Treatment Protocols.

MCB/OMD Review of System Performance Parameters

911 Basic Life Support (BLS) Ambulances – Working in conjunction with EMSA leadership, these ambulances were deployed started December 1, 2021. This program allows EMTs to fully utilize their assessment skills and garner valuable experience with electronic health records. Efficiency for Advanced Life Support (Paramedic) Ambulance response is gained as BLS ambulances can be allocated to a scope of incidents, carefully defined using data from individual Medical Priority Dispatch System (MPDS) determinant codes. The approximate one hundred determinate codes selected from the nearly 2000 determinant codes utilized by EMSA, are predictive of lower acuity illness and/or injury that can be optimally managed within the EMT scope of practice as defined within the MCB Treatment Protocols.

Further data-driven selection analysis was and continues to be based upon historical return to hospital using lights and sirens (as a surrogate marker of patient clinical severity) less than one percent, ALS assist activation =- via ongoing 9-1-1 caller query from an emergency medical dispatcher or via 911 BLS ambulance personnel once on-scene less than ten percent, or presence of unstable vital signs (as defined with the MCB Treatment Protocols) less than one percent. All such variables are analyzed by the OMD team every 60 days and in turn reported to the MCB, with the CMO having authority to immediately suspend the inclusion of any MPDS determinant code in the 911 BLS Ambulance Program for patient safety reasons. EMTs assigned to this program have performed notably well, with all safety parameters being met in combined service area analyses every two months to date since December 1, 2021.

Response Times – EMSA calculates and supplies MCB/OMD with monthly performance reports regarding its ambulance response times. All monthly reports supplied to MCB/OMD by EMSA were personally reviewed by the OMD Division Chiefs, the Chief Medical Officers, and the MCB. Reports in this past year typically indicated aggregate compliance with response time standards in the metropolitan Tulsa area. These same reports in this past year consistently indicated aggregate non-compliance with response time standards in the metropolitan Oklahoma City area. Inabilities to meet expected response times were most consistently linked to a) staffing challenges, limiting the number of ambulances in service to levels below that desired; b) ambulances held at hospitals on hospital/ED-initiated bed delay (transfer of care delay), even despite considerable expenditures (hundreds of thousands of dollars) by EMSA to employ Transfer of Care (TOC) paramedics, often otherwise off-duty paramedics, including credentialed firefighter/paramedics. EMSA continues to assure the MCB/OMD that it is diligently working in recruiting EMTs and paramedics to the metropolitan Oklahoma City area with plans to increase the number of staffed ambulances.

Fire departments, particularly the larger departments, such as Oklahoma City and Tulsa, supply their response times for EMS-related calls monthly as well. These reports are personally reviewed by the OMD Division Chiefs and the Chief Medical Officers monthly. All these fire department-based reports indicate reasonable response time performances.

Response time allowance changes approved by the EMSA Board of Trustees that went into clinically operational effect on November 1, 2013, continued throughout this operational year. This specifically allowed for the historical 8:59 Priority 1 standard to be extended to 10:59 within the beneficiary cities. Priority 2 responses were also extended, specifically from 12:59 to

24:59, with notable cessation of red lights and sirens (RLS) use. Significant safety benefits of these changes were anticipated and observed during their eighth into ninth operational year, yet no clinical detriments in patients relatable to these response time allowance changes were noted by the Chief Medical Officers and OMD Division Chiefs. Cumulatively, over 1 MILLION EMSA ambulance responses have transitioned from use of lights and sirens response to scene to expeditious without use of lights and sirens response to scene. The prevention of ambulance involved collisions, proven to be highest in urban areas when using lights and sirens, is essentially incalculable. Injuries and deaths involving patients, EMS professionals, and the traveling public have been directly prevented through this clinically judicious use of lights and sirens. The program and its success are increasingly being studied and reported as "role model" for the entirety of the United States by organizations such as the National EMS Quality Alliance (NEMSQA) which has adopted the reduction of lights and sirens in EMS as its marquee program for 2022-2023. Accordingly, EMSA has even been nominated for at least one national award highlighting safety in EMS.

Hospital-Initiated EMS Diversion Requests – EMSA calculates and supplies to the EMSA CIO for MCB/OMD monthly reports on the number of hospital-initiated EMS diversions their personnel encountered in ambulance transports. All monthly reports supplied to MCB/OMD were personally reviewed by the OMD Division Chiefs, the Chief Medical Officers, and the MCB. Most reports indicate reasonably desirable control of diversion numbers by hospitals in the service area. In May of 2008, the MCB took action to reduce then-elevating numbers of hospital-initiated EMS diversion requests by instituting a protocol that allows paramedics to override such requests if the patient was clinically stable and had a pre-existing relationship with that hospital, its network, and/or a physician on its active or referring medical staff. The effects of that protocol continue to show positive impact as the EMS system promotes patients receiving continuity of care for better clinical outcomes and fiscal stewardship.

As earlier referenced, a continuing area of concern related to hospital emergency department patient saturation is EMS "bed delay" times. This time period begins when EMSA EMTs and paramedics arrive in an emergency department with the patient packaged on the stretcher and encounter no available beds in which to transfer the patient for ED care and extends to the time in which a transfer into a bed or chair occurs. The Chief Medical Officer advised the MCB of continuing concerns, stemming from prior analysis prepared by EMSA, supporting anecdotal experiences detailed in daily EMSA Field Operations Supervisor/District Chief Reports that ambulances were being held, at times, now over 2 hours at hospitals, with rare but occurring examples over 3 hours at some hospitals in situations of extreme capacity limitations. Once more prevalent in the metropolitan Tulsa area, both major metropolitan areas serviced by this EMS system are experiencing notable frequencies and lengths of hospital/ED-initiated bed delays.

The COVID-19 pandemic, while once having significant impact upon hospital emergency department volumes, specifically decreasing them by up to 40%, subsequently proved an additional challenge with then overloaded area hospitals and particularly their ICUs. The Chief Medical Officer continues to see an unfortunate consistency of "bed delay" as patient volumes have normalized back to historical volume trends and increased upon those in many facilities.

Trauma Priority & Destination Reports – EMSA calculates and supplies MCB/OMD monthly reports detailing the numbers and percentages of trauma patients by priorities (One, Two, or Three) and destinations. All monthly reports supplied to the MCB/OMD were personally reviewed by the OMD Division Chiefs, the Chief Medical Officers, and the MCB. All reports indicate continuance of the following: 1) Priority One Trauma patients comprise <15% of traumas monthly, with most months seeing <10%. 2) Documentation supporting patients identified as Priority One Trauma is typically at or above 90%. 3) Destination for Priority One Trauma patients is appropriately selected at or above 98% of the time. Deviations from appropriate destination selection are reviewed with individual paramedics making those deviations.

Clinical Continuous Quality Improvement Agency Reports – EMSA and fire department EMS liaisons calculate and supply MCB/OMD monthly reports detailing the activities related to EMS in the respective agency. All agencies with EMT-Intermediates, Advanced EMTs and/or Paramedics regularly adhere to the requirements to supply these reports. Content is comprised of call types and volumes, airway management performance, cardiac arrest management performance, intravenous access performance, pharmaceutical utilization, and educational initiatives. All monthly reports supplied to the MCB/OMD by these agencies with ALS capabilities were personally reviewed by the OMD Division Chiefs and the Chief Medical Officers. These reports consistently reflect that agency personnel are meeting or exceeding the clinical expectations of MCB/OMD. Summary statements of these reports are either reported to the MCB by Dr. Goodloe and/or the full agency reports are available for review to any MCB physician at their request. Smaller, BLS fire departments are varied in their reporting consistencies. OMD Division Chiefs and the Chief Medical Officers continue to work with these departments to facilitate timely and consistent reporting of their activities.

Cardiac Arrest Outcomes – The EMS System for Metropolitan Oklahoma City and Tulsa continues to achieve enviable outcomes in cardiac arrest. Whereas the national average for survival from out-of-hospital cardiac arrest (witnessed arrest, bystander CPR, and shockable cardiac dysrhythmia upon EMS arrival) has improved to nearly 13.6%, outcomes in Oklahoma City and Tulsa are well above this national aggregate performance. See also the 2020 Cardiac Arrest Summary and Outcomes Report, accessible on the www.okctulomd.com website, reflecting an Utstein survival of 26.76% in a year in which nearly every large, urban EMS system is reporting significant decline in survival, predominantly linked to the COVID-19 pandemic dynamics. The 2021 Cardiac Arrest Summary and Outcomes Report is being completed at the time of this Annual Report and will be posted on the MCB/OMD website ahead of next year's Annual Report.

Response Vehicle Inspections – OMD Division Chiefs continue to inspect new emergency medical response vehicles, such as fire engines and ambulances, to ensure correct medical equipment provisioning and condition. Few deficiencies are typically discovered and immediately corrected when found.

MCB/OMD Project Initiatives

Cardiac Arrest Outcomes Optimization Program (aka "50/50" Program) – Building upon the EMS system's pattern of admirable success in aggressively resuscitating cardiac arrest victims, the MCB continued promulgated sophisticated resuscitation team dynamic protocol standards and working with the Edmond Fire Department, operationalized the use of "head up" CPR via the EleGard® device. Utilization of EleGard in less than 70 cases to date does not allow for sufficiently powered data to determine the full impact upon neurologically intact survival, though trends in Cerebral Performance Category (CPC) scores over the past several years are promising when considering the "bundle of care" approach of high-quality CPR, timely defibrillation, and maximal incorporation of both negative intra-thoracic pressure and cardio cerebral perfusion pressure dynamics. These standards detail optimal team role performances to maximize chest compression fraction time, reduce delays in timely defibrillation, and achieve coordinated efforts in lifesaving.

Cardiac arrest resuscitation team dynamics continue to be reinforced during continuing education for all current EMS professionals in the system and are reviewed in focused detail during the orientation for all EMS professionals joining this system. Coordinated skill precision is further reinforced through individual feedback supplied to all EMS professionals involved in a specific resuscitation. Utilizing the CodeSTAT software platform, resuscitation care elements (chest compressions, ventilations, defibrillations) are analyzed by the OMD Division Chief - Critical Care Analytics, annotated for clinical event accuracy, and then reported to the Chief Medical Officers, OMD Division Chiefs – Medical Oversight, and relevant agency CQI personnel to then be forwarded to the frontline clinical personnel actually performing the care analyzed. This feedback is essential in reinforcing excellent care provision and helping individuals make desirable modifications for future resuscitations. Attempted resuscitations are formally annotated, and reviews are returned to CQI personnel often within 72-96 hours to forward to front-line credentialed personnel.

The EMS system has shown abilities to produce approximately 30-40+% neurologically intact survival among victims experiencing a citizen witnessed, citizen CPR initiated, and EMS discovered shockable cardiac rhythm upon their arrival. While very good in its impact upon cardiac arrest survival, the MCB/OMD has stated a system goal of achieving 50%+ survival in the same patient types in both metropolitan Oklahoma City and Tulsa, thus the program's "50/50" description and our endless enthusiasm to achieve this goal in a multi-year progression program.

Coordinated Continuing Education – Prior to July 2009, OMD did not have consistent interaction and oversight of continuing education in the EMS system. The results, without a hub of coordination, have proven that agencies are pursuing disparate educational initiatives, resulting in educational message inconsistencies. Work continues in rectifying these dynamics to promote consistency in educational messaging and consistency in timing of education material distribution throughout the EMS system, thereby promoting better integration of treatment plans between fire-based and EMSA-based EMS professionals. Multiple OMD-produced educational videos are also accessible on the okctulomd.com website.

EMS Professional Credentialing Testing – OMD Division Chiefs – Medical Oversight, with oversight by the Chief Medical Officer, continued the practice of verification of clinical skills

performance and knowledge base testing of all professionals on a biannual basis. Continued updating of all personnel credentialing written examinations was performed with direct involvement of the Chief Medical Officers. A computer-based testing platform allows for more efficient testing access and completion for EMS professionals and OMD professionals alike.

EMS System Promotion – Metropolitan Oklahoma City and Tulsa is blessed with the multitude of dedicated EMS professionals in its EMS system. Dr. Goodloe and Dr. Knoles, with endorsement by the MCB, have continued a purposeful plan to better recognize the achievements of these EMS professionals. Academic writing, system-based research with outcomes presentations at scientific assemblies and acceptance of EMS conference speaking invitations are routinely conducted to promote this fine EMS system. The cumulative results advance the interests of patients, EMS professionals, and the cities within the service area. Specific actions in this realm were increased as many scientific conferences cautiously re-convened with viral transmission reduction practices among attendees. Presentations included:

EMS State of the Science XXIII/"A Gathering of Eagles" (Goodloe)
- Don't Fear the Tier: Why Many EMS Systems Are Now Following the Classic ALS/BLS Deployment Strategies of Historically Successful Cities (co-presented with colleagues from Atlanta, Ft. Worth, Houston, & Colorado Springs)
- Fun with Funding: Cost-Analysis, Justifications and Strategies for EMS & Fire Services to Roll Out Neuro-Protective CPR (co-presented with colleague from San Antonio)
- Field Triage and Bleeding Control with a New Twist: New Stop the Bleed and Field Triage Guidance from ACS-COT, ACEP, NAEMSP, NAEMT and a Group of Great Partners (co-presented with colleague from Atlanta)
- Hyperactive Delirium: When Best Practices Become Entwined with the Worst Politics – Reporting the ACEP Task Force Report on Hyperactive Delirium with Severe Agitation

ESO Wave Conference (Goodloe)
- Hyperactive Delirium/Sedation in EMS Panel (co-presented with colleagues from ESO, Denver, Broward County Florida)
- Optimal Hemorrhage Control by EMS & Field Whole Blood Transfusion (co-presented with colleague from San Antonio)

Spectrum Health/Michigan State University Emergency Medicine Residency Program EMS Day 2022 (Goodloe)
- High Risk EMS Patient Refusals – Physician Consult Best Practices

EMerald Coast Conference – Regional Emergency Medicine Conference (Goodloe)
- High Risk EMS Patient Refusals – Physician Consult Best Practices

Formal, peer-reviewed publications included:

> Kupas DF, Zavadsky M, Burton B, Baird S, Clawson JJ, Decker C, Dworsky PI, Evans B, Finger D, **Goodloe JM**, LaCroix B, Ludwig GG, McEvoy M, Tan DK, Thornton KL, Smith K, Wilson BR. Joint Statement on Lights & Siren Vehicle Operations of Emergency Medical Services Responses, Prehospital Emergency Care, DOI: 10.1080/10903127.2022.2044417
>
> Kupas DF, Zavadsky M, Burton B, Baird S, Clawson JJ, Decker C, Dworsky PI, Evans B, Finger D, **Goodloe JM**, LaCroix B, Ludwig GG, McEvoy M, Tan DK, Thornton KL, Smith K, Wilson BR. Joint Statement on Lights & Siren Vehicle Operations on Emergency Medical Services Responses. Annals of Emergency Dispatch & Response. 2022; 10(1):21-23.
>
> Newgard C, Fischer PE, Gestring M, Michaels HN, Jurkovich GJ, Lerner EB, Fallat ME, Delbridge TR, Brown JB, Bulger EM, **Goodloe JM**, Armstrong JH, Gallagher JM, Wang SC, Eastridge BJ, Mann NC, Lawler RR, Salomone JP, Chou R, Christopherson NAM, Klein J, Sasser SM, Godat LN, Gilchrist J, Lupton JR, Russell RT, Rowe D, Neal M, Dafferner M, Dodd J. For the 2021 National Expert Panel on Field Triage National Guideline for the Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage, 2021, Journal of Trauma and Acute Care Surgery: April 27, 2022 - Volume - Issue - 10.1097/TA.0000000000003627 doi: 10.1097/TA.0000000000003627

Response Configurations – When a caller dials 911 with a medical complaint in metropolitan Oklahoma City or Tulsa, that complaint is coded into one of approximately now 1,952 condition and acuity determinants established within the Medical Priority Dispatch System (MPDS), a proprietary medical dispatch software system. MPDS is the most widely utilized such system in developed countries around the world and is supported by evidenced-based medicine. MPDS has been adopted by the MCB in specifying clinically appropriate utilization of fire response resources, while attempting to keep as many resources available in service for highest acuity medical responses and non-medical roles (fire suppression, hazardous materials, specialized rescue, and training). The design is to promote the usually closest fire apparatus is available for response to the scene of particularly serious, time-sensitive medical emergencies, such as cardiac arrest, unconsciousness, or gunshot wounds to the chest or abdomen. The criteria utilized to determine whether fire response was selected has previously been agreed to by the affiliated fire departments. During this operational year, in scheduled and ongoing analysis, the Chief Medical Officer and OMD personnel conducted further review of each MPDS code for EMS system response configuration and priority for ambulance response, making recommendations for changes to few codes that were subsequently approved by the MCB.

EMSA Electronic Health Records Availability to Emergency Department/Hospital-Based Medical Practitioners – MCB physicians, the Chief Medical Officers, and OMD professionals worked collaboratively throughout the operational year with EMSA leadership, using the ESO EHR platform to improve providing timely patient care documentation in accordance with existing MCB policy.

Directions for Operational & Fiscal Year 2022-2023

The upcoming year will be filled with continuation of the multitude of projects identified in this report as well as additional advancements and revisions to clinical standards of care. Cardiac arrest resuscitative care will continue to be a hallmark of intervention efforts over the coming year, with anticipation of continuing formal research into the early impacts of adding active compression-decompression CPR. We also are eager to see advances enabled by the EleGard head-up CPR device, with hopes to expand its usage throughout the EMS system. As we continue to see increasing cases of its use in the Edmond area, we are hopeful sufficient powered data analysis on survival impact can be initiated.

Additional strategic planning, including regional EMS system medical oversight collaborations and benchmarking, will occur within the coming operational year to continue to build upon service to organizations comprising the EMS System for Metropolitan Oklahoma City and Tulsa, EMS professionals within those organizations, and the patients we collectively are honored and humbled to serve.

We have included an FTE for a statistician within the MCB/OMD office, with a minimum of a master's degree professional to fill this role. We believe such capability will launch a new era of data analysis of clinical care in the EMS system, including formal presentations and publications of such analyses.

In sum, this past operational and fiscal year has seen tremendous energies and enthusiasms evident from MCB/OMD despite considerable challenges reflected in increasing patient volumes served, decreasing hospital capacities for patients created by staffing dynamics, and certainly an unexpected change in executive leadership at EMSA, though one that has resulted in an exciting level of cooperation by EMSA leadership. Similar commitments and enthusiasms have been mirrored by many of the EMS leaders and liaisons in affiliated agencies. Continued effective working relationships between affiliated agencies and MCB/OMD have resulted in the two achievements that matter most:

1 – High quality EMS clinical care for the spectrum of acute illness and injury patients.

2 – Determined, agency-neutral support for the EMS professionals providing high quality EMS clinical care.

During the 2010-2011 operational year, the Medical Director adopted the following philosophy of his Seattle counterpart:

On Achieving Success

"There is no 'silver bullet.' There is just hard work."
Michael Keyes Copass, MD.

This sentiment continues to be found in prominent position upon every desk at which work is performed by the Chief Medical Officers and the OMD Division Chiefs. It will remain in such places throughout Dr. Goodloe's tenure as the Chief Medical Officer, serving as a constantly visible reminder of the expectations in meeting the incredible trust afforded to MCB/OMD by the patients we serve.

Hard work, focused enthusiasm, and the relentless pursuit of optimal clinical care and outcomes continue to advance both the science and art of EMS medicine in the EMS System for Metropolitan Oklahoma City and Tulsa. We again enter the coming year, Operational & Fiscal Year July 2022 – June 2023, convinced that despite the many challenges ongoing and ahead, we have the opportunity to prove it as the finest in the history of the MCB/OMD.