

The Modern EMS Physician: Trends in EMS Medical Direction

Dustin Holland, MD, MPH, FACEP

Medical Director

Carson City Fire Department

Central Lyon Fire Protection District

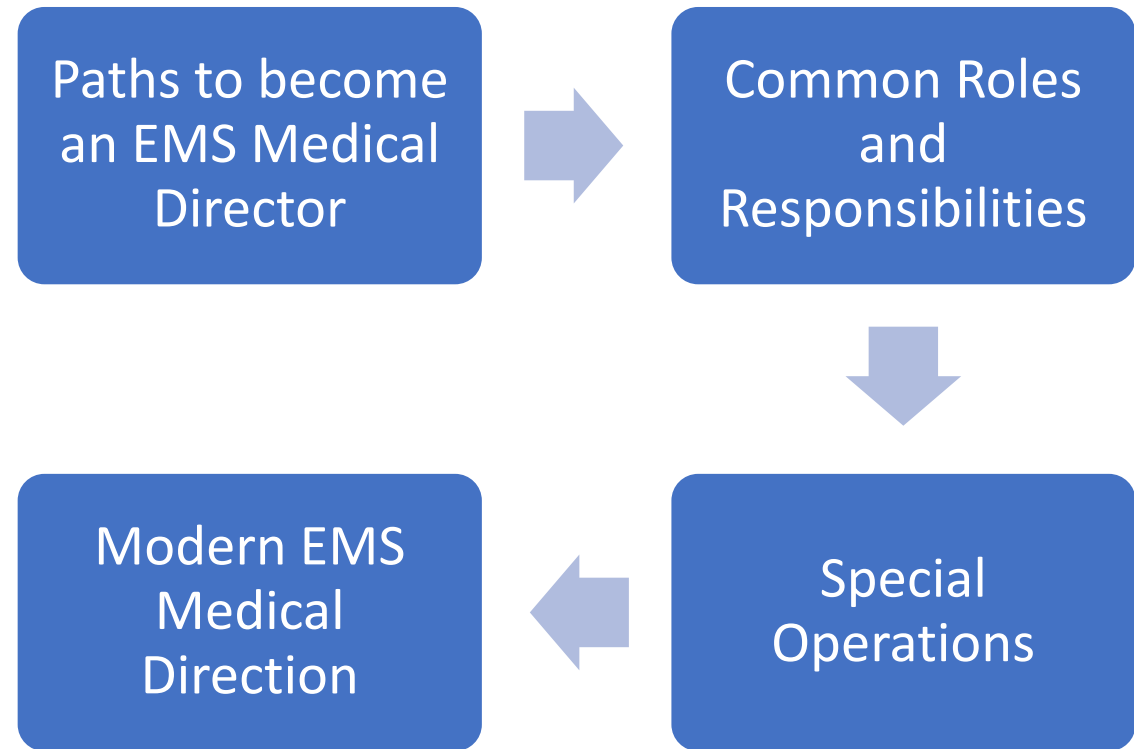
Carson City Sheriff's Office SWAT

I have no financial disclosures or conflicts of interest.

**Did you just try to use
your training,
experience, and common
sense to provide patient
care without asking a
doctor first?**



Outline



What is a Medical Director?

- A physician who is responsible for all aspects of patient care for an EMS system or EMS provider service, including providing for or ensuring the medical control of EMS providers; the development, implementation, evaluation of medical protocols; and oversight of quality assurance activities.
- "the ultimate responsible authority for the medical actions taken by a prehospital provider or EMS system and the process of performing actions to ensure that care provided by EMS personnel is appropriate."



~~The~~ A Path to become an EMS Physician

College Degree (4 yrs) +
Work Experiences / Time “off” +
Medical School (4 yrs) +
Residency (3-4 yrs) +
EMS Fellowship (1-2 yrs) +
= First “real” job

Generally, 12-14 yrs post-High School













ZOLL®



Medical Director - **Minimum** Requirements

Physician
license

DEA

Knowledge of
the EMS
system

State Scope
of Practice

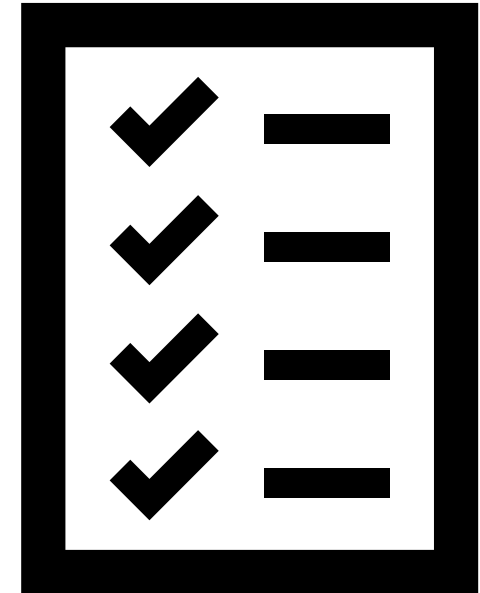
Protocols

Basic of QI

Federal and
State Laws

Ethical
Standards

EMS Training
or Experience*



A graphic illustrating the iceberg metaphor for medical director knowledge. It features a large iceberg floating in a blue ocean under a cloudy sky. The visible tip of the iceberg is small, while the much larger submerged portion is shown in a dark blue gradient. The graphic is composed of several geometric shapes: a large white shape for the sky, a blue shape for the water, and a large dark blue shape for the submerged part of the iceberg. A small hexagonal inset shows a close-up of the water surface.

Ideal Medical Director Knowledge

System Infrastructure

- EMS System Design
- Dispatch Systems
- Interfacility Transports
- Legislation / Regulations
- State EMS Office
- EMS Personnel
- Finance Principles
- Air Medical Services



Clinical Oversight

- Medical Oversight
- Team Dynamics
- EMS Dispatch
- Radio Etiquette
- Political Dynamics
- Legal Issues
- Due Process
- Risk Management
- Research



Human Resources

- EMS Provider Education
- EMS Provider Wellness
- Occupational Injury
- Ambulance Safety
- Medical Surveillance
- Mentally Stressful Events
- Occupationally Acquired Infections

Extraordinary Events

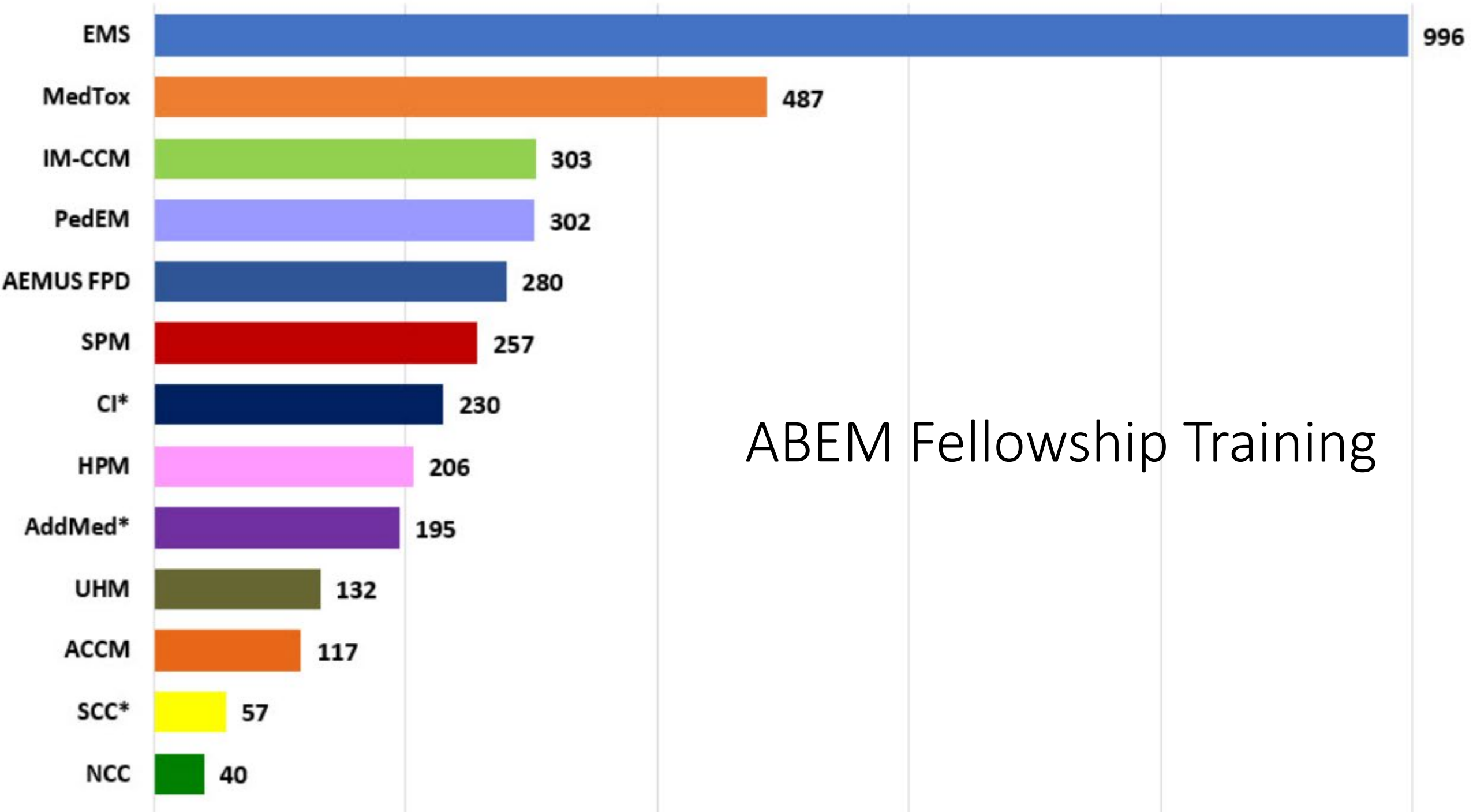
- Incident Command System
- Mass Gatherings
- Disaster Preparedness
- Federal Medical Response
- Triage Systems
- Mass Casualty Incidents
- Temporary Treatment Facilities



Special Operations

- HazMat
- WMD/Radiation Injuries
- Tactical EMS
- Fireground Operations
- Confined Space
- Wilderness
- Search and Rescue





Roles of a *Modern* EMS Medical Director

Indirect vs Direct care	Protocol development	Dispatch Oversight	CQI - A&R	Skills verification	Credentialing
Remediation	Education	Field Response*	TEMS	Search and Rescue (USAR)	Wilderness Medicine
Emerging technology	MCI planning	Special Events	Hospital Liaison	Operations Input	DEA / Narcotic orders
	Patient Complaints	Research	General Availability	Support / Debriefing	

Indirect Patient Care



Protocol
Development



Base Hospital
Guidelines



Phone / Radio
Communication



SOPs



Education



CQI

Protocol Development

- Do No Harm
- Evidence Based
- Provider Input
- Annual Updates

Credentialing

- Care Reviews
- In-Person Evaluation
- Skills Check-off

Education

- Lectures
- On-scene
- Emergency Department

Remediation

- Due Process
- Assume the Role

Continuous Quality Improvement

- System of checks and balances
- Allows EMS leaders to determine:
 - How care is being delivered,
 - If care is making a difference,
 - If processes are being followed





EMD Oversight



TEMS



Physician Scene Response & Direct Patient Care

EMS Physician Involvement

- Do we want more physician involvement in our system?
- If so, how do we justify the work/cost?
- What/who will make it successful?
- Is this the new standard of care?



Issues to Expect



Formally trained EMS physician has a higher expected operation status than a non-specialty Medical Director



FEMA and NAEMSP expect a physician in the field.





- Doc will steal all the procedures
- “Big Brother” is watching
- Doc will get in the way
- We’ll get in trouble more often
- Patient care will change, doc doesn’t follow protocols

Expert Opinion

“The field is the bedside for the EMS physician. Just as a surgeon needs an OR, the EMS Physician needs to be in the field. It’s the only way to do the job right. - Dr. Jeffery Ho

“I’d recommend scene response as a primary method of QA/QI for EMS Medical Directors.”
- Mark Lindquist, MD

“In 15 years I rarely performed a skill. I assist the EMS provider performing the skill. The rapport this builds with your team has no parallel and goes farther than any QA/CQA programs or lectures. Carry some bags for them and watch their respect for you grow which is critical to your success as a leader.” - Bruce S. Ushkow, MD, MS, FACEP

FEMA

- Medical Directors should **routinely participate in field responses**, making first-hand contemporaneous patient care evaluations of the EMS system. This activity will help **evaluate the agency's effectiveness and the quality** of service being rendered to ill and injured patients.
- The Medical Director's on-scene observations and guidance on routine EMS responses will support **a factual assessment of many aspects of service delivery**, provide **mentoring and coaching** opportunities of EMS providers, and have the added benefit of demonstrating **commitment** to the EMS providers and agency leadership. Field exposure will also benefit the medical director in establishing initiatives that will **advance the agency's performance**, as well as provide evidence-based research opportunities in a clinical EMS system. Although direct field experience with providers may be time-intensive, it is one of the **most valuable experiences for both medical directors and providers**.





POSITION PAPER

NATIONAL ASSOCIATION OF EMS PHYSICIANS

PHYSICIAN MEDICAL DIRECTION IN EMS

Hector Alonso-Serra, MD, MPH,
Donald Blanton, MS, MD, Robert E. O'Connor, MD, MPH

Modern EMS systems are designed to bring sophisticated emergency medical care to the patient's side. While contemporary EMS systems do not routinely utilize physicians to deliver care, the public expects to receive equivalent care provided by EMS personnel. As such, EMS systems require knowledgeable physician participation and supervision at every level. Active physician involvement in many EMS systems has brought needed improvements, but guidelines for a medical director's quali-

fications, responsibilities, and authority continue to be refined.

The out-of-hospital mission is accomplished through varied approaches. Some systems are inclusive, with all system components (dispatch, first response, ALS care, and transport) housed within the same agency. Others consist of separate agencies within government; some involve cooperative interaction between public and private agencies. A physician may serve as medical director of the entire system or a specific segment. If medical direction is segmented, there must be close interaction between medical directors of the agencies that comprise the system.

The final influence, authority, and responsibilities of a medical director will depend on the specific system structure, the community's needs and resources, and multiple other variables. This document will help to assess needs, set priorities, and provide a focus for discussion with administrators and government officials. This document reflects the National Association of EMS Physicians' position on the job duties of the EMS medical director, and is intended to help system administrators integrate medical direction throughout EMS systems. It is anticipated that this will serve as a resource for EMS physicians in their leadership role.

Essential Qualifications

- Licensed to practice medicine or osteopathy

- Familiar with local/regional EMS activity

Desirable Qualifications

- Board certification or board preparedness in emergency medicine (American Board of Emergency Medicine or American Board of Osteopathic Emergency Medicine)
- Active clinical practice of emergency medicine
- Completion of an EMS fellowship

Acceptable Qualifications

- Board certification or board preparedness in a clinical specialty, approved by the American Board of Medical Specialties or the American Osteopathic Association

Required Formal Training or Demonstrated Continuing Education Activity

- Training or significant experience in the clinical practice of out-of-hospital emergency medical services
- Training or significant experience in the provision of direct (on-line) and indirect (off-line) medical direction
- Knowledge of the design and operation of all components of EMS systems
- Knowledge of the principles of emergency medical dispatch
- Knowledge of federal, state, and

Dr. Alonso-Serra is assistant professor and chief, Emergency Medical Services Division, Section of Emergency Medicine, University of Puerto Rico, San Juan, Puerto Rico. Dr. Blanton is medical director, Nashville Fire Department, EMS, Nashville, Tennessee, clinical assistant professor of emergency medicine, Vanderbilt University Medical Center, Nashville, Tennessee, and attending emergency physician, Columbia-Summit Medical Center, Hermitage, Tennessee. Dr. O'Connor is chair, NAEMSP Standards and Clinical Practice Committee, medical director, State of Delaware EMS, Dover, Delaware, and research director and associate clinical professor, Department of Emergency Medicine, Medical Center of Delaware, Newark, Delaware.

Approved by the NAEMSP Board of Directors July 12, 1997. Received July 12, 1997; revision received July 15, 1997; accepted for publication July 16, 1997.

Address correspondence and reprint requests to Robert E. O'Connor, MD, MPH, Department of Emergency Medicine, Medical Center of Delaware, 4755 Ogletown-Briston Road, P.O. Box 6001, Newark, DE 19718. e-mail: <roconnor@christiancare.org>.

- Enhancing the education of EMS providers and quality of EMS care by offering real-time feedback at the scene or after.
- EMS Physicians bring experience, special tools, skills and medications to complicated situations, such as:
 - High-risk patient refusals
 - Combative patients, with additional sedation options
 - Assistance with release at scene of patients with minor conditions, both for everyday incidents as well as for mass casualty incidents and disasters
 - Fireground rehab and HazMat situations
 - Response to occupational exposures and injured providers
 - Assistance with critical care inter-facility transports
 - Back-up to ILS/BLS units



EMS Physician Scene Response Program

The UNM EMS Consortium Physician Field Response Program – a unique, state-approved EMS agency - provides emergency physician-level field response and support. While the majority of requests come from our partner agencies within the Greater Albuquerque Metropolitan Area, our EMS physicians may respond for mutual aid anywhere the State if requested, and available.

Physicians respond in fully-equipped quick response vehicles to provide equipment and expertise not generally available to traditional EMS services, such as field amputation, ultrasound, rapid sequence intubation, video laryngoscopy, chemical extrication and sedation, blood products, etc. There is no charge to the requesting service or the patient.

Some Real Benefits

Enhancing the education of EMS providers and quality of EMS care by offering real-time feedback at the scene or after.

EMS Physicians bring experience, special tools, skills and medications to complicated situations, such as:

- High-risk patient refusals
- Combative patients, with additional sedation options
- Assistance with release at scene of patients with minor conditions, both for everyday incidents as well as for mass casualty incidents and disasters
- Fireground rehab and HazMat situations
- Response to occupational exposures and injured providers
- Assistance with critical care inter-facility transports
- Back-up to ILS/BLS units
- High Risk Skills/Procedures (<1%)

Why you
should
encourage
you MD to
be more
active...

- Real time supervision and training at the bedside
- Improved knowledge and awareness of your system
- Direct Medical Control
- Advanced Scene Management (rare)
- Increased care capabilities (ultra rare)



Take Home Points



Medical Directors should be in the field

Ask questions if yours is not



Direct patient care is a **tiny** part

Can be impactful when it occurs



Every ALS agency needs a Medical Director

Should have real passion for EMS Medicine



My goal

Enable out-of-hospital clinicians to be competent, compassionate, and critically-thinking providers of emergency and non-emergency care



Dustin Holland, MD, MPH
(702) 577-7956

dholland@centralfireenv.org

dholland@carson.org