EMS Medicine within the Fire Service

Partnership in Professionalism

...or Recipe for Mediocrity??
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Past President
National Association of EMS Physicians
The medical and ethical performance of EMS professionals has never been more important than it is today.
The emerging of a profession: Paramedicine
The End of the Beginning
The End of the Beginning

- Innocence is over
- You are COMPLETELY accountable for what you do
- Becoming a professional requires you to always be able to explain your actions
- EMS is ONLY and ALWAYS about patient care
The LAW

Moses, Moses
§ 773.001. SHORT TITLE. This chapter may be cited as the Emergency Health Care Act.


§ 773.002. PURPOSE. The purpose of this chapter is to provide for the prompt and efficient transportation of sick and injured patients, after necessary stabilization, and to encourage public access to that transportation in each area of the state.
§ 773.007. SUPERVISION OF EMERGENCY PREHOSPITAL CARE.
(a) The provision of advanced life support must be under medical supervision and a licensed physician's control.

(b) The provision of basic life support may be under medical supervision and a licensed physician's control.

§ 773.012. ADVISORY COUNCIL.

(a) The governor shall appoint an advisory council to advise the board regarding matters related to the responsibilities of the board, commissioner, and department under this chapter. In making appointments to the advisory council, the governor shall ensure that approximately one-half of the members of the advisory council are residents of rural areas of the state.

(b) The advisory council is composed of the following 15 members appointed by the governor:
§ 773.042. BASIC LIFE-SUPPORT EMERGENCY MEDICAL SERVICES PROVIDER QUALIFICATIONS.

§ 773.043. ADVANCED LIFE-SUPPORT EMERGENCY MEDICAL SERVICES PROVIDER QUALIFICATIONS.

§ 773.044. MOBILE INTENSIVE-CARE PROVIDER QUALIFICATIONS

§ 773.045. SPECIALIZED EMERGENCY MEDICAL SERVICES PROVIDER QUALIFICATIONS.
§ 773.049. EMERGENCY MEDICAL TECHNICIAN—PARAMEDIC QUALIFICATIONS.

An individual qualifies as an emergency medical technician-paramedic if the individual is certified by the department as minimally proficient to provide advanced life support that includes initiation under medical supervision of certain procedures, including intravenous therapy, endotracheal or esophageal intubation, electrical cardiac defibrillation or cardioversion, and drug therapy.
§ 773.061. DISCIPLINARY ACTIONS.
(a) For a violation of this chapter or a rule adopted under this chapter, the department shall revoke, suspend, or refuse to renew a license or certificate of or shall reprimand:

(1) emergency medical services personnel;
(2) a program instructor, examiner, or course coordinator; and
(3) an emergency medical services provider license holder.
§ 773.062. EMERGENCY SUSPENSION.

(a) The bureau chief shall issue an emergency order to suspend a certificate or license issued under this chapter if the bureau chief has reasonable cause to believe that the conduct of any certificate or license holder creates an imminent danger to the public health or safety.

(b) An emergency suspension is effective immediately without a hearing on notice to the certificate or license holder.

(c) The holder may request in writing a hearing on the emergency suspension. The department shall conduct the hearing not earlier than the 10th day or later than the 30th day after the date on which the request is received...
(d) Nonemergency suspension or revocation. An EMS provider license may be suspended or revoked for, but not limited to, the following reasons:

(8) failing to maintain patient confidentiality according to standards and department regulations;

(14) failing to staff each vehicle deemed to be in service or response ready with appropriately and currently certified personnel;

(15) operating, directing, or allowing staff to operate vehicle warning devices unnecessarily or inappropriately;

(17) having been found to have operated, directed, or allowed staff to operate any vehicle while on EMS business in a reckless or unsafe manner and/or in a manner that is dangerous to the health or safety of any person;

(18) operating, directing, or allowing staff to operate any vehicle that is not mechanically safe, clean and in good operating condition; and/or
(b) Nonemergency suspension, decertification and revocation of a certificant or paramedic licensee. The department may suspend or decertify an EMS certificant or suspend or revoke a licensed paramedic for, but not limited to, the following reasons:

(1) violating any provision of the Health and Safety Code, Chapter 773, and/or Title 25 of the Texas Administrative Code (TAC), as well as Federal, State, or local laws, rules or regulations affecting, but not limited to, the practice of EMS;

(3) failing to make accurate, complete and/or clearly written patient care reports documenting a patient's condition upon arrival at the scene, the prehospital care provided, and patient's status during transport, including signs, symptoms, and responses during duration of transport;

(4) falsifying any EMS record; patient record or report; or making false or misleading statements in a oral report; or destroying a patient care report;
(b) Nonemergency suspension, decertification and revocation of a certificant or paramedic licensee. The department may suspend or decertify an EMS certificant or suspend or revoke a licensed paramedic for, but not limited to, the following reasons:

(6) causing or permitting physical or emotional abuse or injury to a patient or the public, and/or failing to report such abuse or injury to the employer, appropriate legal authority and/or the department;

(8) failing to respond to a call while on duty and/or leaving duty assignment without proper authority;

(9) abandoning a patient, turning over the care of a patient or delegating EMS functions to a person who lacks the education, training, experience, knowledge to provide appropriate level of care for the patient;
Continuing Education Requirements under Texas Administrative Code
Title 25, Part 1, Chapter 157

<table>
<thead>
<tr>
<th>CONTENT AREAS</th>
<th>ECA</th>
<th>EMT-B</th>
<th>EMT-I</th>
<th>EMT-P</th>
</tr>
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<tbody>
<tr>
<td>PREPARATORY</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>AIRWAY MANAGEMENT/VENTILATION</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>PATIENT ASSESSMENT</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>TRAUMA</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>MEDICAL</td>
<td>9</td>
<td>18</td>
<td>27</td>
<td>36</td>
</tr>
<tr>
<td>SPECIAL CONSIDERATIONS</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>CLINICALLY RELATED OPERATIONS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>72</td>
<td>96</td>
</tr>
<tr>
<td>ADDITIONAL UNITS IN ANY APPROVED CATEGORY</td>
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<td>48</td>
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<tr>
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EMS medicine is “Delegated Practice”
The EMS physician, who is “independently licensed”, extends practice authorization to a “dependently licensed” individual, the EMS Provider.
OCCUPATIONS CODE
CHAPTER 157. AUTHORITY OF PHYSICIAN TO DELEGATE CERTAIN MEDICAL ACTS

SUBCHAPTER A. GENERAL PROVISIONS
Sec. 157.001. GENERAL AUTHORITY OF PHYSICIAN TO DELEGATE.

(a) A physician may delegate to a qualified and properly trained person acting under the physician's supervision any medical act that a reasonable and prudent physician would find within the scope of sound medical judgment to delegate if, in the opinion of the delegating physician:

(1) the act:
   (A) can be properly and safely performed by the person to whom the medical act is delegated;
   (B) is performed in its customary manner; and
   (C) is not in violation of any other statute; and

(2) the person to whom the delegation is made does not represent to the public that the person is authorized to practice medicine.

(b) The delegating physician remains responsible for the medical acts of the person performing the delegated medical acts.

(c) The board may determine whether:

(1) an act constitutes the practice of medicine, not inconsistent with this chapter; and

(2) a medical act may be properly or safely delegated by physicians.
The authority to delegate medical acts to a properly qualified person as provided by this subchapter applies to emergency care provided by emergency medical personnel certified by the Texas Department of Health.

Acts 1999, 76th Leg., ch. 388, Sec. 1, eff. Sept. 1, 1999.
OCCUPATIONS CODE
CHAPTER 157. AUTHORITY OF PHYSICIAN TO DELEGATE CERTAIN MEDICAL ACTS

SUBCHAPTER A. GENERAL PROVISIONS
Sec. 157.002. GENERAL DELEGATION OF ADMINISTRATION AND PROVISION OF DANGEROUS DRUGS.

(d) In the provision of services and the administration of therapy by public health departments, as officially prescribed by the Texas Department of Health for the prevention or treatment of specific communicable diseases or health conditions for which the Texas Department of Health is responsible for control under state law, a physician may delegate to any qualified and properly trained person acting under the physician's supervision the act of administering or providing dangerous drugs, as ordered by the physician, that are used or required to meet the needs of the patients.
The Three Great Risks of EMS

- Airway Management
- Unsafe Driving Practices
- The Non-transported Patients
Airway Management

An unrecognized esophageal placement of an endotracheal tube cannot be accepted at any time
Airway Management

The standards for endotracheal management are the same in the field as in the operating room, the ICU, or the emergency department.
Misplaced Endotracheal Tubes by Paramedics in an Urban EMS System

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Orlando, FL
Misplaced Endotracheal Tubes by Paramedics in an Urban EMS System

Total Patients: 108

Trauma: 52 (48%)
  - Misplaced: 19/52 (37%)

Medical: 56 (52%)
  - Misplaced: 8/56 (14%)

Misplaced ETIs: 27 (25%)
  - Esophagus: 18/27 (67%)
  - Hypopharnnx: 9/27 (33%)

ETT-7

SK, JF ORMC '98
Airway Management

Rigorous adherence to a standard airway evaluation pathway will prevent airway accidents

…and, if you don’t know that the tube is in, bag the patient, and think about a Combitube
What Happened in Block 2?

The endotracheal tube became dislodged!
Airway Management

*Carbon dioxide assessment in the airway is **NOT** an option*
Airway Management

Waveform capnography is the preferred method, but colorimetric is acceptable.
Colorimetric method

- A (purple) = < 4 mm Hg
- B (tan) = 4-15 mm Hg
- C (yellow) = > 15 mm Hg
EMS is leading the emergency medicine industry in critical care concepts.

It’s the most challenging time in the history of EMS.
Unsafe Driving Practices

It has never been shown that hurrying to or from the scene of a clinical event has ever improved hospital outcome
Unsafe Driving Practices

Medics often drive Rigs the same way that they drive their personal vehicles.
Unsafe Driving Practices

EMS Systems, and the Medical Directors, and directly accountable for taking action on providers who do not drive according to policy and state law.
Non-Transports

Talking patients out of going to the hospital to meet a personal need of a provider (sleep, hunger, laziness, indifference) is a sin, and it is illegal.
Approaching the Patient
“See what you see!”

“People look, but they don’t see”

...A. Fowler, Jr.
Alertness?
Level of distress?
Noises?
Respirations?
The pulse rate?
Skin?
Obvious things (bleeding)
The “art” of medicine is missing from so many practitioners....

...are they not looking, or have they lost interest?
Part of excellence is performing superior medical histories and physical exams
History Taking:

This seems to be a “lost black art” for so many medical providers.

What happened?
When?
LOC?
Major system symptoms?
Co-morbid conditions?

Above all: RISK???
Primary Survey

LOC/Airway/Cspine
Respiratory Rate and Labor
Pulses, Neck and Wrist
Skin CMT/CRT
Neck appearance, NVD, Trachea
Chest appearance
Breath sounds present and equal
Brief exam of abd, pelvis, LE, UE, Back
\[
\text{Blood pressure} = (\text{Cardiac output}) \times (\text{Volume}) \times (\text{Peripheral resistance})
\]
Signs of Shock

Early

Weak, thirsty, lightheaded
Pale, then sweaty
Tachycardia
Tachypnea
Diminished urinary output

Late

Hypotension
Altered LOC
Cardiac arrest
Death
Shock

Cardiogenic
- Rapid pulse
- Distended neck veins
- Cyanosis

Volume Loss
- Rapid pulse
- Flat neck veins
- Pale

Vasodilatory
- Variable pulse
- Flat neck veins
- Pale or pink
Only with excellence in physical assessment, commitment to patient service, and strict audit procedures can unwarranted non-transports be avoided.
Fig. 105. Artificial Respiration.
Raising and lowering arms. Third Method.
CIVIL PRACTICE & REMEDIES CODE
CHAPTER 74. MEDICAL LIABILITY
SUBCHAPTER D. EMERGENCY CARE
Sec. 74.151. LIABILITY FOR EMERGENCY CARE.

(a) A person who in good faith administers emergency care, including using an automated external defibrillator, is not liable in civil damages for an act performed during the emergency unless the act is willfully or wantonly negligent.

(b) This section does not apply to care administered:
   (1) for or in expectation of remuneration, provided that being legally entitled to receive remuneration for the emergency care rendered shall not determine whether or not the care was administered for or in anticipation of remuneration; or
   (2) by a person who was at the scene of the emergency because he or a person he represents as an agent was soliciting business or seeking to perform a service for remuneration.

(c), (d) Deleted by Acts 2003, 78th Leg., ch. 204, Sec. 10.01.

(e) This section does not apply to a person whose negligent act or omission was a producing cause of the emergency for which care is being administered.
CIVIL PRACTICE & REMEDIES CODE
CHAPTER 74. MEDICAL LIABILITY
SUBCHAPTER D. EMERGENCY CARE

Sec. 74.152. UNLICENSED MEDICAL PERSONNEL.

Persons not licensed or certified in the healing arts who in good faith administer emergency care as emergency medical service personnel are not liable in civil damages for an act performed in administering the care unless the act is wilfully or wantonly negligent.

This section applies without regard to whether the care is provided for or in expectation of remuneration.
Is a provider "willfully and wantonly negligent" if the medical protocol says USE CAPNOGRAPHY and the medic doesn’t?
CIVIL PRACTICE & REMEDIES CODE
CHAPTER 74. MEDICAL LIABILITY
SUBCHAPTER F. STATUTE OF LIMITATIONS
Sec. 74.251. STATUTE OF LIMITATIONS ON
HEALTH CARE LIABILITY CLAIMS.

(a) Notwithstanding any other law and subject to Subsection (b),
no health care liability claim may be commenced unless the action is filed
within two years from the occurrence of the breach or tort or from the date
the medical or health care treatment that is the subject of the claim
or the hospitalization for which the claim is made is completed;

provided that, minors under the age of 12 years shall have until their
14th birthday in which to file, or have filed on their behalf, the claim.
Except as herein provided this section applies to all persons regardless
of minority or other legal disability.
Considerations on the Relationship between the Fire Chief, the Provider, and the Medical Director
The relationship is not linear:

Fire Chief → Provider

Medical Director
The relationship is triangular:

Fire Chief ———> Provider

Medical Director ———> Fire Chief
Civil Service, employment matters, FD Policy and Procedure

Fire Chief

Medical Director

Provider

State Practice Statutes and Rules
The medical protocol set should be seen as a contract between the Medical Director and the Provider.
The Medical Director cannot hire and fire

The Medical Director extends practice authority
System Credentialing (What level of care can an individual provide?)

Every Provider that delivers medical care within the System must be “Credentialed to Practice” in addition to holding a current State of Texas Certification or Licensure. Additionally, certain types of Providers may also be “Qualified” to perform medical care in unique or special circumstances or environments.

- Credentials
  All Credentialed Providers within the City of Austin/Travis County EMS System are allowed to provide care under the direction of the Medical Director. The Medical Director delegates the authority to make medical decisions and provide clinical care. Delegated authority to provide medical care is a requirement of the Texas Department of State Health Services and the Texas State Board of Medical Examiners. Credentialing is the final approval of a System and the Medical Director that ensures an individual’s competency to care for patients as part of the Emergency Medical Services System. An individual is "Credentialed to Practice" when he or she successfully meets and maintains the defined Credentialing requirements. The levels of Credentialing are:
  - Emergency Medical Dispatch (EMD)
  - Emergency Care Attendant (ECA)
  - Emergency Medical Technician – Basic (EMT-B)
  - Emergency Medical Technician – Intermediate (EMT-I)
  - Emergency Medical Technician – Paramedic (EMT-P)
  - Flight Nurse
Ed’s “Five Deadly Sins”

As in any practice of medicine, there are actions that are deemed unacceptable for any Provider involved in medical care of the patients. In the City of Austin/Travis County EMS System, these actions are known as the *Five Deadly Sins*. If substantiated through a process of appropriate investigation and peer review, any Provider found to be involved in any of these actions will be Decredentialed in the System. These actions are:

- Falsification of a patient care document
- Intentionally withholding care from a patient
- Intentionally harming a patient
- Providing care while impaired by alcohol or drugs
- Failure to remediate and/or participate in required education and/or review
SPECIAL NOTICE!!

MEDICAL AUTHORITIES HAVE ANNOUNCED THAT AIDS CAN BE CONTRACTED THROUGH THE EARS BY LISTENING TO ASSHOLES.

USE EXTREME CAUTION AROUND HERE!!
No Actual Event
A. Unsafe Conditions

Event, No Harm
B1. The event did not reach the individual because of chance alone (“Near-miss”)
B2. The event did not reach the individual because of active recovery efforts by caregivers (“Near-miss”)
C. The event reached the individual but did not cause harm
D. The event reached the individual and required additional monitoring or treatment to prevent harm

Event, Harm
E. The individual experienced temporary harm and required treatment or intervention
F. The individual experienced temporary harm and required initial or prolonged hospitalization
G. The individual experienced permanent harm
H. The individual experienced harm and required intervention necessary to sustain life (e.g., transfer to ICU)

Event, Death
I. The individual died
Sadly, “harm done” often dictates disposition of a disciplinary action
Some General Thoughts
Civil Service is a “guaranteed set of benefits” and a “guaranteed due process”
Can Medical Director be forced to return a medic to clinical duties?
The biggest failure of many EMS Medical Directors today is in failing to establish clear paths of medical “due process”
What authority could a “peer review board” have on medici practice?
Does every provider have to be a paramedic in the entire department?
It’s NOT “stay and play”

It’s NOT “load and go”

It’s “do the right thing
EVERY TIME”
The EMS Medical Director MUST be held to rigorous standards of clinical practice, just like the EMS Provider.
Medical Direction

“You are the vehicle, and you have the keys to it”

Mike Gosselin, Assoc. FC
Care Point

GEMS CAREpoint™ EMS Workstation for advanced life-support communications and data management.

Click Here to View Larger Image

Above is shown the default communications display ready to receive communications and telemetry data. Click Here to View Full Size
Call goes down:
Several people down at AA Stadium at the playoff game tonight
LOC reported on many Seizures present on a few
Mass panic is in effect
Hundreds have been trampled as thousands storm out of the building
Many are lying on the ground, showing pinpoint pupils, extreme salivation, dyspnea, wheezing, and muscle fasciculations.
Considerations:

Protect yourself... prepared???
Dead animals present?
Up hill, upwind
Avoid contamination
Red survey
“Get ‘em in, get ‘em out!”
Constant Scene Assessment:

The new standard for EMS

Even prior to the initiation of incident command
Uphill and upwind isn’t enough:
You have to apply your same diagnostic skills to “diagnosing the environment”
Red Survey

Many Victims?

LOC
Position
Airway
Not breathing? Move on
Pulseless? Move on
Nerve Gas:

How much atropine do you have? Mark I kits available?

Give atropine until secretions dry up, not necessarily pupils getting small.
Chlorine/Mustard:

Coughing and airway stuff
Oxygen
Albuterol
Decontamination
Transfer
Cyanide:

Oxygen
Ventilation support
Must have cyanide kit
Three drugs still IN (amyl nitrite, Na\(^+\) nitrite, Na\(^+\) thiosulfate)
Transfer
TERRORISM

Afghanistan

Who would do this?
“I thought I’d never laugh again. Then I saw your jacket.”
Synthesis
The professionalism of EMS continues to grow.

You, the heroes of the streets, must concentrate harder than ever to stay on top of your job.
Whoever you are, wherever you work...

...only your best, every time, is enough
Thank you for your kind attention!