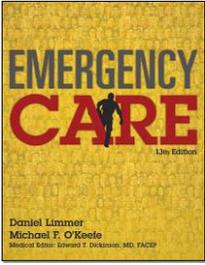


Emergency Care

THIRTEENTH EDITION



CHAPTER 1

Introduction to Emergency Medical Care

Daniel Limmer
Michael F. O'Keefe
Assistant Editor: Edward T. O'Keefe, MD, FACP

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How It Began

- 1790s - Napoleonic Wars
- Civil War – Clara Barton (Red Cross)
- Early 1900's – Nonmilitary ambulance services
- World War I - Volunteer ambulance corps
- Korea/Vietnam - MASH units and helicopters
- 1940's - Hospitals, F.D., or funeral homes
 - Little to no training and equipment
- 1966 – DOT charged with developing EMS standards

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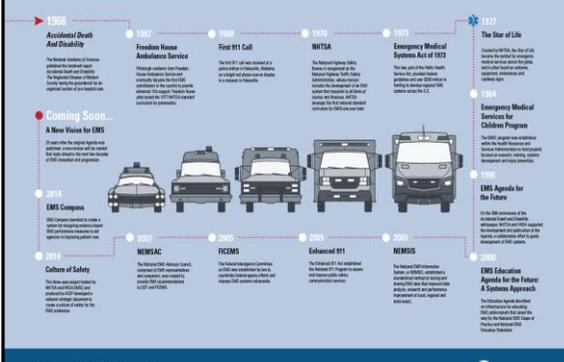
EMS System

- First developed in 1973
- National Highway Traffic Safety Administration (NHTSA) oversees the national EMS system

NHTSA Technical Assistance Program Assessment Standards

<ul style="list-style-type: none"> ▪ Regulation and policy ▪ Resource management ▪ Human resources and training ▪ Transportation ▪ Facilities 	<ul style="list-style-type: none"> ▪ Communications ▪ Public information and education ▪ Medical direction ▪ Trauma systems ▪ Evaluation
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50 Years of Helping EMS Systems Improve

ems gov

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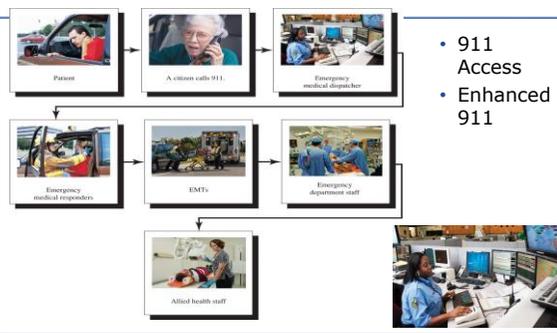
Components of the EMS System

- Emergency Medical Dispatchers
- Four levels of EMS responders
- Emergency Department/Hospital
 - Doctors, nurses, allied health personnel
- Specialty centers
 - Trauma, stroke, cardiac, pediatrics, burn



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Accessing the EMS System



- 911 Access
- Enhanced 911

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Roles and Responsibilities of EMTs

- Personal safety
- Safety of crew, patient, and bystanders
- Patient assessment
- Patient care
- Lifting and moving
- Transport
- Transfer of care
- Patient advocacy
- Community health initiatives

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Physical Traits of a Good EMT

- Ability to lift and carry equipment and patients up to 125 pounds
- Good eyesight (distance and reading)
- Awareness of any problems with color vision
- Good communication skills (oral and written)

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Personal Traits of a Good EMT

- Pleasant
- Sincere
- Cooperative
- Resourceful



Is that all?

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Personal Traits of a Good EMT

Self-Starter	Emotionally Stable
Able to lead	Neat and Clean Appearance
Non-Judgmental and Fair	Of Good Moral Character and Respectful of Others
In Control of Personal Habits	Controlled in Conversation and Able to Communicate Properly
Able to Listen to Others	Maintain Up-to-Date Knowledge and Skills



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National Registry of Emergency Medical Technicians

- Established in 1970
- Registration for EMRs, EMTs, AEMTs, and paramedics who successfully complete NREMT examinations
- May help in reciprocity (transferring to another state or region)
- Beneficial when applying for employment

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Quality Improvement

- Continuous self-review with the purpose of identifying aspects of the system that require improvement
- Ensure public receives highest quality prehospital care
- Develop plans to correct deficiencies and improve performance

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Quality Improvement

- Everyone in organization has a role.
 - Preparing carefully written documentation
 - Becoming involved in the quality process
 - Obtaining feedback from patients and hospital staff
 - Maintaining your equipment
 - Continuing your education

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Medical Direction

- All patient care performed under direction of Medical Director
 - Ultimate responsibility for patient care
 - Oversees training
 - Develops treatment protocols
 - Issues off-line medical direction (standing orders)
 - Provides on-line medical direction

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EMS Role in Public Health

- Injury Prevention
 - Geriatrics and Pediatrics
- Public Vaccination
- Disease Surveillance

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Research – Evidence Based

- Improve patient outcomes through evidence-based techniques
- Evidence-based process
 - Forming a hypothesis
 - Reviewing literature
 - Evaluating the evidence
 - Adopting the practice if evidence supports it

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The Basics of EMS Research

- Not all research is created equal.
- Rely on the scientific method.
- Exact and comprehensive studies are both difficult and time consuming.
- Obtain an objective opinion.

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Methods of Reducing Bias

- Prospective versus retrospective
- Randomization
- Control groups
- Study group similarity

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Types of Medical Research

- Case studies/case reports
- Cohort/concurrent control/case-control studies
- Randomized controlled trials (RCTs)
- Systematic review
- Meta-analysis

Questions?