Chapter 1
Introduction to Emergency Medical Care

Overview

- The Emergency Medical Services System
  - National Highway Traffic Safety Administration Technical Assistance Program
  - Access to the Emergency Medical Services System
  - Levels of Education
  - The Health Care System
  - Liaison with Other Public Safety Workers

Overview

- The Emergency Medical Technician-Basic
  - Roles and Responsibilities
  - Professional Attributes

- Quality Care
  - Quality Improvement
  - Medical Direction
The Emergency Medical Services System

A system of:
- Agencies
- Personnel
- Institutions

Involved in:
- Planning
- Providing
- Monitoring

Emergency care

The National Highway Traffic Safety Administration

- Division of the Department of Transportation
- Mission
  - To reduce death and disability caused by motor vehicle collisions on the nation’s highways
- Developed a number of programs and initiatives to achieve this mission including the USDOT National Standard Curricula
The National Highway Traffic Safety Administration

Technical assistance program
- 10 standards to benchmark EMS systems
  - Regulation and policy
  - Resource management
  - Human resources and training
  - Transportation
  - Facilities
  - Communications
  - Public information and education
  - Medical direction
  - Trauma systems
  - Evaluation

NHTSA Technical Assistance Program

Regulation and policy
- Recommends all states have:
  - A lead EMS agency
  - Funding
  - Regulations and operational policies and procedures
NHTSA Technical Assistance Program

Resource management
- Allow everyone access to basic emergency medical care
  - Treatment by personnel trained at the EMT-Basic level
  - Patients to be transported in a well-equipped vehicle
  - Transported to a staffed, equipped, and prepared receiving facility
  - Initial educational programs
    - EMT-Basics
    - Advanced providers
    - Continuing education

Transportation
- Safe and effective transportation for all patients
- Ambulances and air medical units must meet minimum criteria and be inspected periodically
- All aspects of the state EMS system must be in a constant mode of readiness

Facilities
- Patients are transported to the closest appropriate facility
- Prehospital care providers understand the hospitals’ capabilities
- This includes specialty facilities
  - Trauma centers
  - Burn centers
  - Children’s hospitals
NHTSA Technical Assistance Program

- Communications
  - Patients can call for emergency care
  - Emergency personnel can communicate effectively with the receiving hospital and other EMS personnel

NHTSA Technical Assistance Program

- Public information and education
  - Promote the public’s involvement in the EMS system
  - Injury prevention programs

NHTSA Technical Assistance Program

- Medical direction
  - Medical direction standards help ensure that physicians stay involved in the patient care system
  - Developing protocols or patient care guidelines
  - Providing medical direction and consultation
  - Evaluating patient care activities and quality improvement
NHTSA Technical Assistance Program

- Statewide trauma care systems
  - Designated trauma centers
  - Trauma triage guidelines
  - Data collection
  - Trauma registry definitions
  - System management
  - Quality assurance

NHTSA Technical Assistance Program

- Evaluation
  - Evaluates the effectiveness of patient care
  - The EMS system can continue to improve the quality of patient care delivered

Access to the EMS System

- 9-1-1
- Non-9-1-1
Access to the EMS System

- EMS providers should teach the public how to access the EMS system

Levels of Education

- NHTSA has developed standardized curricula recognizing four levels of EMS provider
  - First Responder
  - EMT-Basic
  - EMT-Intermediate
  - EMT-Paramedic

- Not every level is recognized in every state

First Responder

- Designed for:
  - Law enforcement
  - Firefighters
  - Persons likely to encounter an ill or injured person
- Not trained for ambulance service
- Provide initial stabilization until additional EMS resources arrive
EMT-Basic

- Prepares personnel to provide primary medical care before the patient reaches the hospital
- Most states require the EMT-Basic as the minimum accepted education level for ambulance staff

EMT-Intermediate

- The EMT-Intermediate level is an advanced EMT level
- Includes
  - All skills of an EMT-Basic
  - Advanced skills
    - Manual defibrillation
    - Administration of intravenous fluids and some medications

Paramedic

- Currently the highest skill level
- Includes
  - All of the skills of an EMT-Basic
  - All of the skills of an EMT-Intermediate
  - Advanced techniques
    - Tracheal intubation
    - Administration of additional medications
    - Additional knowledge of the human body
The Health Care System

- EMS is an essential part of the healthcare system in the United States

The Health Care System

- Hospitals and specialty facilities
  - Trauma centers
  - Burn centers
  - Poison centers
  - Children’s hospitals

The Health Care System

- Health care professionals
  - Physicians
  - Nurses
  - Allied health providers
  - EMS providers
  - Support personnel
Liaison with Other Public Safety Personnel

Roles and Responsibilities
- Personal safety
- Safety of the crew, patient, and bystanders
- Patient assessment
- Patient care based on assessment

Roles and Responsibilities
- Lifting and moving patients safely
- Transport and transfer of care
- Record-keeping and data collection
- Patient advocacy (patient rights)
Professional Attributes

- Appearance
- Attitude
- Knowledge and skills
- Makes patient’s needs a priority
- Knowledge of issues
- Continuing education

EMTs have an obligation to be knowledgeable and provide technically proficient care

Continuing Education
Quality Improvement

- Quality improvement (QI)
  - A system for continually evaluating and improving the care provided within an EMS system
    - Quality assurance
    - Quality management

Quality Improvement

- Provides the EMT with:
  - Resources
  - Motivation
  - Education
- Purpose:
  - Detect problems
  - Create solutions
  - Maintain quality care

Medical Direction

- Medical direction
  - Sometimes called medical control
  - The process by which physicians monitor the care given by EMT-Basics to ill or injured patients
Medical Direction

- **Online**
  - Direct medical direction
  - Also referred to as online medical control
  - Direct communication between the physician and the provider in the field

Medical Direction

- **Offline**
  - Indirect medical direction, or off-line medical control
  - Consists of other ways physicians influence care
  - EMS system design
  - Developing protocols and standing orders
  - Providing initial and continuing education
  - Participating in quality improvement

Summary

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