

NATIONAL HIGHWAY TRAFFIC  
SAFETY ADMINISTRATION

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# National EMS Core Content





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# Introduction

## EMS Agenda for the Future

With the financial and administrative support of the National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration (HRSA), the *Emergency Medical Services Agenda for the Future*, commonly known as the *Agenda*, was published in 1996. This national consensus document was a collaborative venture led by the National Association of EMS Physicians (NAEMSP), in conjunction with the National Association of State EMS Directors (NASEMSD).

The *Agenda* provided a global vision for Emergency Medical Services:

*Emergency Medical Services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic conditions and community health monitoring. This new entity will be developed from redistribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in a more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net.*

Designed for use by public and private stakeholders, the *Agenda* created a common vision to help guide EMS planning and policy development at the local, State and National levels. The *Agenda*, which addresses 14 attributes of the future emergency medical services system, has generated a number of nationally significant projects and activities including the *EMS Education Agenda of the Future: A Systems Approach*.

## EMS Education Agenda for the Future: A Systems Approach

The *Agenda*'s "Education Systems" attribute contained several recommendations including:

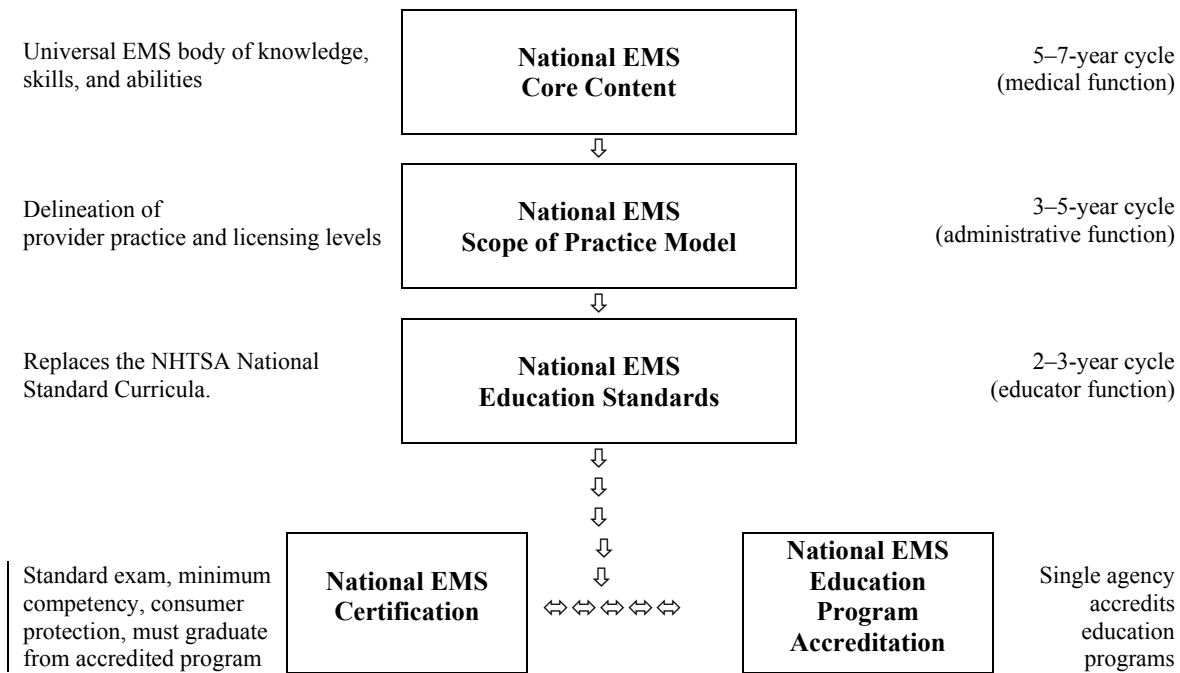
- Ensure adequacy of EMS education programs
- Update education core content frequently enough so it reflects patient EMS-health care needs
- Incorporate research, quality improvement, and management learning objectives in higher level EMS education
- Commission the development of national core content to replace EMS program curricula

Incorporating the recommendations of the *Agenda*, in 2000 a multidisciplinary task force formulated the *EMS Education Agenda for the Future: A Systems Approach* with the following vision:

*EMS education in the year 2010 develops competence in the areas necessary for EMS providers to serve the health care needs of the population. Educational outcomes for EMS providers are congruent with the expectations of the health and public safety services that provide them. EMS education emphasizes the integration of EMS within the overall health care system. EMS education is of high quality and represents the intersection of the EMS professional and the formal educational system. The content of the education is based on National EMS Education Standards. There is significant flexibility to adapt to local needs and develop creative instructional programs.*

The *EMS Education Agenda for the Future: A Systems Approach* describes a structured national EMS education system with five integrated components as described in the following diagram:

**Diagram I**



An ad hoc committee of the lead organizations for the first three components of the *Education Agenda*, convened by NHTSA in June 2001, further elucidated the purpose of each component:

- The *National EMS Core Content* will specify what knowledge and skills are necessary in the out-of-hospital setting regardless of level of practice...the domain of EMS practice. The Core Content will also determine how these tasks will be performed;
- The *National EMS Scope of Practice Model* will specify who (which level of practice) will perform specific skills and how much knowledge providers will have at each level; and,
- The *National EMS Education Standards* will prescribe how to teach the knowledge and skills to each provider level.

The *EMS Education Agenda* proposes an integrated system in which the development of each component involves a national consensus-based approach with the right organizations performing the right functions. For instance, the medical community led the development of this *National EMS Core Content*, system administrators will lead the development of the *National EMS Scope of Practice Model*, and EMS educators will lead the development of the *National EMS Education Standards*.

The first three system components are sequential. The *Core Content* forms the foundation for the *Scope of Practice Model* and the *Scope of Practice Model* forms the foundation for the *Education Standards*. The development of the *National EMS Core Content* is the first step of implementing the *National EMS Education Agenda for the Future: A Systems Approach*.

# Development of National EMS Core Content

## Introduction

While the *National EMS Core Content* task force (Appendix I), led by the National Association of EMS Physicians in cooperation with the American College of Emergency Physicians, was created in the fall of 2001, their deliberations were delayed by the tragic events of September 11, 2001. The task force met several times to develop the structure and format of the *National EMS Core Content* – a formidable task considering the absence of relevant EMS-specific examples and information. The task force reviewed examples from other professions including the *Model of Clinical Practice of Emergency Medicine*.

Initial task force efforts were focused on developing the rationale and underlying assumptions with subsequent work focused on the *National EMS Core Content* itself. Following opportunities for public input, the task force completed its draft document in the winter of 2003-2004.

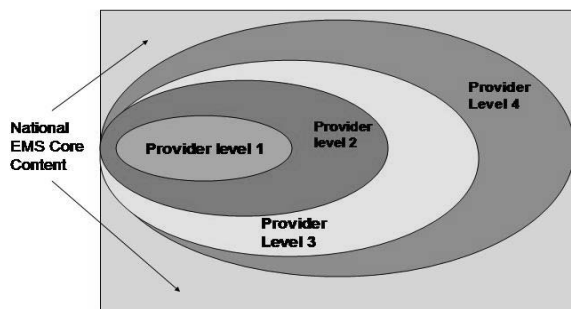
## Rationale

### Assumptions

The following assumptions and principles guided the development of the *National EMS Core Content*:

- While the medical community leads the development of the *Core Content*, physician involvement and direction is also imperative during the development of each component of the *National EMS Education Agenda: A Systems Approach*.
- *Core Content* defines the entire domain of out-of-hospital practice and identifies the universal body of knowledge and skills for emergency medical services providers who do not function as independent practitioners. The *National EMS Core Content* serves as the total domain from which the *National EMS Scope of Practice Model* derives national EMS provider levels. However, the *Core Content* may identify knowledge and skills that are outside the scope of practice of the highest level of EMS provider. While the actual number of provider levels is dependent on the *National EMS Scope of Practice Model*, the following illustration depicts the relation between the *Core Content* and the *Scope of Practice*:

### Core Content and Scope of Practice



**NOTE:** Above illustration is an example only. The number and names of EMS provider levels will be determined by the *National EMS Scope of Practice Model* process.

- The *Core Content* remains flexible within the established parameters to allow local systems to incorporate into their practice the latest evidence-based medical advances consistent with applicable state laws and administrative rules.
- *Core Content* does not represent a minimum level of knowledge and competency. The *National Scope of Practice Model* will determine the minimum level of knowledge and competency for various levels of EMS providers.

### Model of the Clinical Practice of Emergency Medicine

The *Model of Clinical Practice of Emergency Medicine*<sup>1</sup> is a consensus document describing both the process of clinical practice of emergency medicine and the knowledge one must possess. This model was developed by reviewing physician tasks for a variety of patient presentations (signs and symptoms) and pathophysiologies. The rationale for inclusion of signs and symptoms, in addition to pathophysiology, is that most patients are not diagnosed at the time of their presentation to emergency medicine.

The *Model* has several interrelated components:

- Listing of Conditions and Components: The universal body of knowledge one must possess to practice emergency medicine.
- Definitions of Acuity: Definitions of acuity are fundamental to determining the sequence of events in which the physician tasks are carried out.
- List of Patient-Physician Interactions: This list defines all processes used by the physician in delivering care to the patient in the emergency department.
- Matrix: The matrix provides a listing of patient-physician interactions and a corresponding level of acuity (critical, emergent, or lower priority). The patient acuity is fundamental to determining the sequence of patient-physician interactions. The dynamic matrix defines the complex set of interactions that describes the process of delivery of patient care in the emergency department – i.e., the emergency physician modifies the patient interactions based on the patient acuity.

The *Model of the Clinical Practice of Emergency Medicine* is not simply a listing of knowledge and skills, but rather a complex, interactive process that defines a patient-centered practice. The physician must first master the Listing of Conditions and Components, determine the level of criticality when first assessing a patient, and then perform the physician-patient interactions in an order that is dependent on patient criticality.

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<sup>1</sup> American Board of Emergency Medicine. [www.abem.org](http://www.abem.org).



# National EMS Core Content

## Introduction

The *National EMS Core Content* uses the *Model of Clinical Practice of Emergency Medicine* as the template. This will further align the out-of-hospital community with the medical community. With out-of-hospital providers using the same terminology and definitions as other allied health care partners, this may lead to enhanced patient care and facilitate EMS's professional acceptance.

The *Model of Clinical Practice of Emergency Medicine* Listing of Conditions and Components, as well as its matrix, was used as a basis for developing the *National EMS Core Content*. The appropriateness for inclusion of each item in the Core Content was considered individually. Definitions of patient acuity and tasks were developed consistent with out-of-hospital practice.

The following principles guided the decision-making process:

- Criticality relates to patient presentation and not to the degree of emphasis that must be placed on the topic during instruction;
- A differential diagnosis needs to be developed in sufficient depth to allow the EMS provider to determine what treatment might be harmful;
- EMS education is in the form of building blocks to allow the EMS provider to integrate knowledge to care for the patient appropriately.

As with the *Model of the Clinical Practice of Emergency Medicine*, the *National EMS Core Content* is not just a list of knowledge, skills, and tasks; it describes what EMS providers must know and how they practice. The EMS providers must master, at their level of licensure, the Listing of Conditions and Components, and must learn skills and procedures unique to their practice. Then, when assessing a patient, the EMS provider must use their knowledge, skills, and procedures commensurate with the level of patient criticality.

## Components of National EMS Core Content

### Listing of Conditions and Components

The universal body of knowledge one must possess to practice emergency medical services. The *National EMS Core Content* used the listing of the *Model of Clinical Practice of Emergency Medicine* as a starting point. (See Appendix 2)

### Patient Acuity Definitions

Definitions of acuity are fundamental to determining the sequence of events in which the EMS provider tasks are carried out. These definitions are consistent with those in the *Model of Practice of Emergency Medicine*. (See Appendix 3)

### Out-of-Hospital/EMS Task Definitions/Elements

This list defines all processes used by the EMS personnel in delivering care to the patient in the out-of-hospital environment. (See Appendix 4)

### Matrix of Out-of-Hospital/EMS Task Definitions/Elements

The matrix provides a listing of EMS tasks and a corresponding level of acuity (critical, emergent, or lower priority). The patient acuity is fundamental to determining the sequence of performing the tasks.

The dynamic matrix defines the complex set of interactions that describes the process of delivery of patient care in the out-of-hospital environment – i.e., the EMS personnel modify the patient interactions based on the patient acuity. (See Appendix 5)

#### Procedures and Skills Integral to the Practice of EMS

This listing of procedures and skills recognizes the unique characteristics of out-of-hospital practice and provides additional clarity to the Scope of Practice and National EMS Education Standards Task Forces. (See Appendix 6)

#### Other Components of the Practice of EMS

This listing of other practice components helps to further elucidate the practice of emergency medical services and to provide guidance to remaining components of the *EMS Education Agenda for the Future*. (See Appendix 7)

All the components of the *Core Content* together define the entire domain of EMS knowledge and skills for out-of-hospital providers based on the interaction of patient complaints, presenting signs and symptoms, and potential patient criticality. It recognizes the need for delineation of the procedures, skills, and other components of the practice of EMS. The *National EMS Core Content* provides the domain from which the *National EMS Scope of Practice Model* is derived.

#### **Special Note Concerning Pediatric, Geriatric, and Other Special Population Patients:**

The *National EMS Core Content* focuses on the domain of practice for the care of ALL patients. It does not separately address the unique knowledge, skills, and attitudes necessary to care for special patient populations, such as children, elders, cardiac, trauma, and technology-assisted patients. However, the entire *EMS Education Agenda for the Future: A Systems Approach* ultimately must assure that the EMS education system adequately prepares EMS professionals to care for each of these distinct patient populations. Specifically, this will necessitate the inclusion of additional information in both the *National EMS Scope of Practice Model* and the *National EMS Education Standards* pertaining to which EMS professional levels are best prepared to manage each of these populations in the out-of-hospital setting. The vigilance of the authors of the *National EMS Scope of Practice Model* and of the *National EMS Education Standards* toward the needs of those special populations will be paramount to assure the continuation of the tremendous strides in EMS education during the past 20 years.

For example, in addressing the needs of pediatric patients, the *National EMS Scope of Practice Model* may specify which of the conditions and components delineated in the *National EMS Core Content* affect infants and children, and which provider levels are best suited to care for them. Likewise, in addressing the needs of pediatric patients, the *National EMS Education Standards* would specify how etiology, presentation, and treatment in pediatric patients may vary from adult patients, emphasizing disparities in pediatric and adult assessment, based upon anatomic, physiologic, developmental, and behavioral differences. Thus, the *National EMS Education Standards* would likely include both specific knowledge about pediatric respiratory conditions such as croup, laryngeal foreign body, epiglottitis, bacterial tracheitis, bronchiolitis, and tracheal foreign body – in addition to asthma and pneumonia which occur in adult and pediatric populations alike; and an assessment-based approach to their management – stressing symptomatic relief of respiratory distress and failure, rather than treatment of specific diagnoses. They may also incorporate specific skills, such as intraosseous infusion, that are used rarely in adults, and could de-emphasize certain others, such as endotracheal intubation, that have been demonstrated to possess limited utility in the pediatric population. A similar approach would be used for conditions and components affecting other special populations, extending the range of the *National EMS Core Content* to patients of all ages and all health needs.

# Appendices

## Appendix 1: Task Force Members

### *American Ambulance Association*

Steve Murphy, R.N.  
Vice President, Government and National Services  
Greenwood, Colorado

### *American College of Emergency Physicians*

Eric Davis, M.D., FACEP  
University of Rochester  
Rochester, New York

### *American College of Surgeons*

Norman McSwain, M.D., FACS  
Tulane University  
New Orleans, Louisiana

### *International Association of Fire Chiefs*

Deputy Chief Allen McCullough, Ph.D.  
Fayette County Department of Fire and Emergency Services  
Fayetteville, Georgia

### *International Association of Fire Fighters*

Jonathan Moore, NREMT-P  
Director, Fire/EMS Operations  
Washington, DC

### *National Association of EMS Educators*

Debra Cason, MS, R.N., EMT-P  
University of Texas Southwestern Medical Center  
Dallas, Texas

Arthur Hsieh, M.A., NREMT-P  
George Washington University  
Washington, DC

### *National Association of EMS Physicians*

Robert Domeier, M.D.  
EMS Medical Director  
Ann Arbor, Michigan

Vincent N. Mosesso, Jr., M.D.  
University of Pittsburg  
Pittsburgh, Pennsylvania

***National Association of Emergency Medical Technicians***

Steve Mercer, Education Coordinator  
Iowa Department of Public Health, Bureau of EMS  
Des Moines, Iowa

***National Association of State EMS Directors***

Michael Armacost  
Colorado State EMS Director  
Denver, Colorado

***National Council of State EMS Training Coordinators***

Liza Burrill  
EMS Education Coordinator  
New Hampshire Department of Safety, Bureau of EMS  
Berlin, New Hampshire

***National Registry of Emergency Medical Technicians***

Chief Jon Politis  
Colonie EMS Department  
Latham, New York

***National Volunteer Fire Council***

Kenneth R. Knipper  
Melbourne, Kentucky

**Task Force Administrative Team**

Jon Krohmer, M.D., FACEP  
Principal Investigator  
Kent County EMS  
Grand Rapids, Michigan

John Brennan, M.D.  
Co-Principal Investigator  
Medical Director  
Randolph, New Jersey

Beth Adams, MA, R.N., NREMT-P  
Expert Writer  
Fairfax County Fire and Rescue Department  
Fairfax, Virginia

Debra Perina, M.D.  
Subject Matter Expert  
University of Virginia  
Ruckersville, Virginia

Michael P. Flanagan, CAE  
Grants Project Director,  
National Association of EMS Physicians  
Lenexa, Kansas

## **Federal Partners**

Jeff Michael, Ed.D.  
National Highway Traffic Safety Administration  
Washington, DC

Drew Dawson  
National Highway Traffic Safety Administration  
Washington, DC

David Bryson, COTR  
National Highway Traffic Safety Administration  
Washington, DC

Cindy Doyle, R.N.  
EMS for Children  
Health Resources and Services Administration/Maternal Child Health Bureau  
Washington, DC

Dan Kavanaugh, M.S.W.  
EMS for Children  
Health Resources and Services Administration/Maternal Child Health Bureau  
Rockville, Maryland

Edward Liao, M.P.H.  
National Field Director  
EMS for Children National Resource Center  
Silver Spring, Maryland

## Appendix 2: Listing of Conditions and Components

<b>1.0 PATIENT COMPLAINTS AND PRESENTING SIGNS AND SYMPTOMS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>1.1 General</b>			
Altered mental status	X	X	X
Anxiety		X	X
Apnea	X		
Ataxia		X	X
Back pain	X	X	X
Bleeding	X	X	X
Change in behavior/interaction		X	X
Coma	X	X	
Confusion		X	X
Crying/Fussiness		X	X
Cyanosis	X	X	
Decreased level of consciousness	X	X	X
Dehydration		X	X
Dizziness		X	X
Edema		X	X
Fatigue		X	X
Feeding problems			X
Fever	X	X	X
Hypertension		X	X
Hypotension	X	X	
Jaundice			X
Joint pain/Swelling		X	X
Limp (infant)	X		
Limp (gait)		X	X
Malaise			X
Multiple trauma	X	X	
Blood & body fluid exposure (e.g., needle stick)			X
Neglect		X	X
Pain	X	X	X
Paralysis	X	X	
Paresthesia/Dyesthesia		X	X
Poisoning	X	X	X
Pruritus			X
Rash		X	X
Shock	X		
Syncope	X	X	X
Tremor			X
Weakness		X	X
<b>1.2 Abdominal/Pelvis</b>			
Abnormal vaginal bleeding	X	X	X
Anuria		X	
Ascites			X
Colic			X
Constipation		X	X

Cramps		X	X
Diarrhea		X	X
Distention		X	X
Dysmenorrhea			X
Dysuria			X
Hematemesis	X	X	
Hematochezia	X	X	X
Hematuria		X	X
Melena	X	X	X
Nausea/Vomiting		X	X
Pain		X	X
Peritonitis		X	
Polyuria		X	X
Rectal bleeding	X	X	X
Rectal pain		X	X
Urinary incontinence			X
Urinary retention		X	X
<b>1.3 Chest</b>			
Bradycardia	X	X	X
Chest pain	X	X	X
Cough			X
Dyspnea	X	X	
Hemoptysis	X	X	
Hiccough			X
Palpitations & irregular heart beat	X	X	X
Tachycardia	X	X	X
Wheezing	X	X	
<b>1.4 Head and Neck</b>			
Congestion			X
Diplopia		X	
Dysphagia		X	X
Ear pain			X
Eye pain		X	X
Headache	X	X	X
Loss of or change in hearing			X
Loss of or change in vision		X	
Red eye / pink eye			X
Sore throat		X	X
Stridor	X	X	
Tinnitus			X
Vertigo		X	X
Drooling	X	X	X
Dental pain			X
Swelling	X	X	X

<b>2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>2.1 Abdominal Wall</b>			
Hernias		X	X
Gastrostomy/enterostomy problems		X	X
<b>2.2 Esophagus</b>			
Infectious disorders			
Candida		X	X
Inflammatory disorders			
Esophagitis		X	X
Gastroesophageal reflux (GERD)			X
Toxic effects of caustic agents			
Acid	X	X	
Alkali	X	X	
Structural disorders			
Boerhaave's syndrome	X	X	
Foreign body		X	
Hiatal Hernias		X	X
Mallory-Weiss syndrome	X	X	
Stricture and stenosis		X	X
Tracheoesophageal fistula	X	X	
Varices	X	X	
<b>2.3 Liver</b>			
Cirrhosis		X	X
Hepato-renal failure		X	
Infectious disorders		X	X
Hepatitis		X	X
Tumors		X	X
<b>2.4 Gall Bladder and Biliary Tract</b>			
Cholecystitis			X
Cholelithiasis/Choledocholithiasis		X	X
<b>2.5 Pancreas</b>			
Pancreatitis	X	X	
Tumors		X	X
<b>2.6 Peritoneum</b>			
Peritonitis	X	X	
<b>2.7 Stomach</b>			
Inflammatory disorders			
Gastritis		X	X
Peptic ulcer disease		X	X
Hemorrhage	X	X	
Perforation	X	X	
Structural disorders			
Foreign body		X	X
Pyloric stenosis		X	X
<b>2.8 Small Bowel</b>			
Infectious disorders		X	X
Inflammatory disorders			
Gastroenteritis		X	X
Regional enteritis/Crohn's disease		X	X



Necrotizing enterocolitis	X	X	
Obstruction			
Mechanical		X	
Paralytic ileus		X	
Structural disorders			
Aortoenteric fistula	X		
Congenital anomalies		X	X
Volvulus (midgut)	X	X	
Vascular insufficiency	X	X	
<b>2.9 Large Bowel</b>			
Infectious disorders		X	X
Inflammatory disorders			
Acute appendicitis		X	
Necrotizing enterocolitis (NEC)	X	X	
Radiation colitis		X	
Ulcerative colitis		X	X
Irritable bowel			X
Obstruction			
Functional			
Hirschsprung's disease		X	X
Mechanical		X	X
Structural disorders			
Congenital anomalies		X	X
Diverticula		X	X
Intussusception	X	X	
Volvulus (sigmoid, cecal)	X	X	
Tumors		X	X
<b>2.10 Rectum and Anus</b>			
Infectious disorders			
Abscess		X	X
Inflammatory disorders			
Proctitis			X
Structural disorders			
Foreign body		X	X
Hemorrhoids			X
Rectal prolapse		X	

<b>3.0 CARDIOVASCULAR DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>3.1 Cardiopulmonary Arrest</b>	X		
SIDS	X		
Other causes	X		
<b>3.2 Congenital Abnormalities of Cardiovascular System</b>			
Disorders due to anatomic anomalies	X	X	X
<b>3.3 Disorders of Circulation</b>			
Arterial			
Aneurysm	X	X	X
Aortic dissection	X		
Thromboembolism		X	
Venous			
Thromboembolism	X	X	

<b>3.4 Disturbances of Cardiac Rhythm</b>			
Cardiac dysrhythmias	X	X	X
Ventricular	X	X	
Supraventricular	X	X	X
Conduction disorders	X	X	X
<b>3.5 Diseases of the Myocardium, Acquired</b>			
Cardiac failure	X	X	
Cor pulmonale	X	X	
High output	X	X	
Low output	X	X	
Cardiomyopathy	X	X	X
Hypertrophic	X	X	X
Congestive heart failure	X	X	
Acute Coronary syndromes	X	X	
Ischemic heart disease	X	X	
Myocardial infarction	X	X	
Myocarditis	X	X	X
<b>3.6 Diseases of the Pericardium</b>			
Pericardial tamponade	X	X	
Pericarditis		X	X
<b>3.7 Endocarditis</b>	X	X	
<b>3.8 Hypertensive Emergencies</b>	X	X	
<b>3.9 Hypotensive Emergencies</b>			
Hypovolemic	X	X	
Distributive	X	X	
Obstructive	X	X	
<b>3.10 Valvular Disorders</b>	X	X	X

<b>4.0 CUTANEOUS DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>4.1 Cancers of the Skin</b>			X
<b>4.2 Decubitus Ulcer</b>		X	X
<b>4.3 Dermatitis</b>			
Atopic			X
Contact			X
Eczema			X
Psoriasis			X
<b>4.4 Infections</b>			
Bacterial			
Abscess		X	X
Cellulitis		X	X
Impetigo			X
Necrotizing infection	X	X	
Fungal			
Candida (See 2.2, 7.5)			X
Parasitic			
Pediculosis infestation			X
Scabies			X
Viral			
Herpes simplex (See 10.6, 13.1)			X
Herpes zoster (See 10.6)		X	X

Pox – varicella, variola		X	X
<b>4.5 Maculopapular Lesions</b>			
Purpura		X	X
Urticaria		X	X
<b>4.6 Vesicular/Bullous Lesions</b>	X	X	

<b>5.0 ENDOCRINE, METABOLIC, AND NUTRITIONAL DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>5.1 Acid-Base Disturbances</b>			
Metabolic or respiratory			
Acidosis	X	X	
Alkalosis	X	X	X
Mixed acid-base balance disorder	X	X	
<b>5.2 Adrenal Disease</b>			
Corticoadrenal insufficiency	X	X	
<b>5.3 Fluid and Electrolyte Disturbances</b>			
Hyper and Hypocalcemia	X	X	X
Fluid overload/Volume depletion	X	X	
Hyperkalemia/Hypokalemia	X	X	X
Hypernatremia/Hyponatremia	X	X	X
Hyper and HypoMagnesium		X	X
<b>5.4 Glucose Metabolism</b>			
Diabetes mellitus			
Type I	X	X	X
Type II		X	X
Glucose metabolism complications			
Diabetic ketoacidosis (DKA)	X	X	
Hyperglycemia		X	X
Hyperosmolar coma	X	X	
Hypoglycemia	X	X	
Systemic		X	X
<b>5.5 Nutritional Disorders</b>			
Vitamin deficiencies			X
Wernicke-Korsakoff syndrome		X	
<b>5.6 Pituitary Disorders</b>			
Panhypopituitarism	X		
<b>5.7 Thyroid Disorders</b>			
Hyperthyroidism	X	X	X
Hypothyroidism		X	X
Thyroiditis		X	X

<b>6.0 ENVIRONMENTAL DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>6.1 Bites and Envenomation (See 18.1)</b>			
Arthropods		X	X
Insects			X
Spiders		X	X
Mammals			
Human		X	X
Rabies		X	X
Marine organisms (See 17.1)	X	X	X
Snakes	X	X	X

<b>6.2 Dysbarism</b>			
Air embolism	X	X	
Barotrauma	X	X	X
Decompression syndrome	X	X	
<b>6.3 Electrical Injury (See 18.1)</b>	X	X	X
Lightning	X	X	
<b>6.4 High-Altitude Illness</b>			
Acute mountain sickness		X	X
Barotrauma of ascent		X	X
High-altitude cerebral edema	X	X	
High-altitude pulmonary edema	X	X	
<b>6.5 Submersion Incidents</b>			
Cold water immersion	X	X	
Near drowning	X	X	
<b>6.6 Temperature-Related Illness</b>			
Heat			
Heat exhaustion		X	X
Heat stroke	X	X	
Heat Cramps			X
Cold			
Frostbite		X	X
Hypothermia	X	X	

<b>7.0 HEAD, EAR, EYE, NOSE, THROAT DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>7.1 Ear</b>			
Foreign body		X	X
Impacted cerumen			X
Labyrinthitis			X
Meniere's disease			X
Otitis externa			X
Otitis media			X
Perforated tympanic membrane			X
<b>7.2 Eye</b>			
External eye			
Burn confined to eye and adnexa		X	
Conjunctivitis			X
Corneal abrasions		X	X
Foreign body		X	X
Inflammation of the eyelids			X
Chalazion			X
Hordeolum			X
Anterior pole			
Glaucoma		X	X
Hyphema		X	X
Iritis		X	X
Posterior pole			
Papilledema	X	X	
Retinal detachments and defects		X	
Orbit			
Cellulitis		X	

<b>7.4 Nose</b>			
Epistaxis	X	X	X
Foreign body		X	X
Rhinitis			X
Sinusitis			X
<b>7.5 Oropharynx/Throat</b>			
Dentalgia			X
Dental abscess			X
Diseases of the oral soft tissue			
Ludwig's angina	X	X	
Foreign body	X	X	
Larynx/Trachea			
Epiglottitis	X	X	
Laryngitis			X
Tracheitis		X	X
Oral candidiasis (See 2.2, 4.4)			X
Peritonsillar abscess		X	
Pharyngitis/Tonsillitis			X
Temporomandibular joint disorders			X

<b>8.0 HEMATOLOGIC DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>8.1 Blood Transfusion</b>			
Complications	X	X	
<b>8.2 Hemostatic Disorders</b>			
Coagulation defects	X	X	X
Acquired	X	X	X
Hemophilias	X	X	X
Disseminated intravascular coagulation	X		
Platelet disorders	X	X	X
Thrombocytopenia		X	X
<b>8.3 Lymphomas</b>		X	X
<b>8.4 Red Blood Cell Disorders</b>			
Anemias			
Aplastic	X	X	
Hemoglobinopathies		X	X
Sickle cell disease		X	X
Hemolytic		X	
Hypochromic			
Iron deficiency		X	X
Megaloblastic		X	X
Polycythemia		X	X
Methemoglobinemia	X	X	
<b>8.5 White Blood Cell Disorders</b>		X	X
Neutropenia			
Leukemia		X	X
Multiple myeloma		X	X
Pancytopenia	X	X	X

9.0 IMMUNE SYSTEM DISORDERS			
	Critical	Emergent	Lower Acuity
<b>9.1 Collagen Vascular Disease</b>			
Raynaud's disease			X
Rheumatoid arthritis		X	X
Systemic lupus erythematosus		X	X
<b>9.2 HIV and Manifestations</b>	X	X	X
<b>9.3 Hypersensitivity</b>			
Allergic reaction		X	X
Anaphylaxis	X		
Angioedema	X	X	
Drug allergies	X	X	X
<b>9.4 Transplant-Related Problems</b>	X	X	X
Immunosuppression		X	X
Rejection	X	X	

10.0 SYSTEMIC INFECTIOUS DISORDERS			
	Critical	Emergent	Lower Acuity
<b>10.1 Bacterial</b>			
Bacterial food poisoning		X	X
Botulism	X	X	
Chlamydia		X	X
Gonococcal infections		X	X
Meningococemia	X	X	
Mycobacterial infections		X	X
Tuberculosis		X	X
Other bacterial diseases	X	X	
Gas gangrene (See 11.6)	X	X	
Sepsis/Bacteremia	X	X	
Shock	X		
Toxic shock syndrome	X	X	
Spirochetes			
Syphilis		X	X
Tetanus	X	X	
<b>10.2 Biologic Weapons</b>	X	X	
Awareness level of current agents for all EMS personnel		X	
<b>10.3 Fungal Infections</b>		X	X
<b>10.4 Protozoan – Parasites</b>			
Malaria		X	
giardiasis			X
<b>10.5 Tick-Borne</b>			
Ehrlichiosis		X	
Lyme disease		X	
Rocky Mountain spotted fever		X	
<b>10.6 Viral</b>			
Infectious mononucleosis		X	X
Influenza/Parainfluenza		X	X
Hantavirus	X	X	
Herpes simplex		X	X

Herpes zoster/Varicella		X	X
Rabies	X		
Roseola			X
Rubella			X
Smallpox		X	X

<b>11.0 MUSCULOSKELETAL DISORDERS (NONTRAUMATIC)</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>11.1 Bony Abnormalities</b>			
Osteomyelitis		X	
Tumors		X	X
<b>11.2 Disorders of the Spine</b>			
Disc disorders		X	X
Low back pain			
Cauda equina syndrome (See 18.1)		X	
Sprains/Strains			X
<b>11.3 Joint Abnormalities</b>			
Arthritis			
Septic		X	
Gout		X	
Rheumatoid (See 9.1)			X
Osteoarthritis			X
Slipped capital femoral epiphysis		X	
<b>11.4 Muscle Abnormalities</b>			
Myalgia/Myositis			X
Rhabdomyolysis	X	X	
<b>11.5 Overuse Syndromes</b>			
Bursitis			X
Muscle strains			X
Peripheral nerve syndrome			X
Carpal tunnel syndrome			X
Tendonitis			X
<b>11.6 Soft Tissue Infections</b>			
Fasciitis		X	
Gangrene	X	X	
Paronychia		X	X
Flexor tenosynovitis of the hand		X	X

<b>12.0 NERVOUS SYSTEM DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>12.1 Cranial Nerve Disorders</b>			X
Bell's palsy			X
Trigeminal neuralgia			X
<b>12.2 Demyelinating Disorders</b>	X	X	
Multiple sclerosis		X	
<b>12.3 Headache</b>	X	X	X
Muscle contraction			X
Vascular		X	X
<b>12.4 Hydrocephalus</b>		X	X
Normal pressure		X	X
VP shunt		X	

<b>12.5 Infections/Inflammatory Disorders</b>			
Encephalitis	X	X	
Meningitis			
Bacterial	X	X	
Viral		X	X
<b>12.6 Movement Disorders</b>		X	X
Dystonic reaction		X	X
<b>12.7 Neuromuscular Disorders</b>			
Guillain-Barré syndrome	X	X	
Myasthenia gravis	X	X	
Amyotrophic lateral sclerosis (ALS)			X
Muscular dystrophy			X
<b>12.8 Other Conditions of the Brain</b>			
Dementia			X
Parkinson's disease			X
<b>12.9 Seizure Disorders</b>	X	X	X
Febrile		X	X
Neonatal		X	
Status epilepticus	X		
Generalized, focal		X	X
<b>12.10 Spinal Cord Compression</b>	X	X	
<b>12.11 Stroke</b>			
Hemorrhagic			
Intracerebral	X	X	
Subarachnoid	X	X	
Ischemic	X	X	
<b>12.12 Transient Cerebral Ischemia</b>		X	X
<b>12.13 Tumors</b>		X	X

<b>13.0 OBSTETRICS AND GYNECOLOGY</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>13.1 Female Genital Tract</b>			
Infectious disorders			
Pelvic inflammatory disease		X	
Ovary			
Cyst			X
Torsion		X	
Uterus			
Dysfunctional bleeding		X	X
Endometriosis			X
Prolapse			X
Vagina and vulva			
Bartholin's abscess		X	
Foreign body		X	X
Vaginitis/Vulvovaginitis			X
<b>13.2 Normal Pregnancy</b>			X
<b>13.3 Complications of Pregnancy</b>			
Abortion		X	
Ectopic pregnancy	X	X	



Hemorrhage, antepartum			
Abruptio placenta (See 18.2)	X	X	
Placenta previa	X	X	
Hyperemesis gravidarum		X	X
Pregnancy-induced hypertension		X	X
Eclampsia	X	X	
Preeclampsia		X	
Infections		X	
<b>13.4 High-Risk Pregnancy</b>	X	X	
<b>13.5 Normal Labor and Delivery</b>		X	X
<b>13.6 Complications of Labor</b>			
Fetal distress	X		
Premature labor (See 18.2)		X	
Premature rupture of membranes		X	
Rupture of uterus (See 18.2)	X		
<b>13.7 Complications of Delivery</b>			
Malposition of fetus	X	X	
Nuchal cord	X		
Prolapse of cord	X		
<b>13.8 Postpartum Complications</b>			
Endometritis		X	
Hemorrhage	X	X	

<b>14.0 PSYCHOBEHAVIORAL DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>14.1 Addictive Behavior</b>			
Alcohol dependence			X
Drug dependence			X
Eating disorders		X	X
Substance abuse			X
<b>14.2 Mood Disorders and Thought Disorders</b>			
Acute Psychosis	X	X	
Bipolar disorder		X	X
Depression		X	X
Suicidal risk	X	X	
Grief reaction			X
Schizophrenia		X	X
<b>14.3 Factitious Disorders</b>			
Drug-seeking behavior			X
Munchausen's by proxy		X	X
<b>14.4 Neurotic Disorders</b>			
Anxiety/Panic			X
Obsessive compulsive			X
Phobic			X
Post-traumatic stress			X
<b>14.5 Organic Psychoses</b>			
Chronic organic psychotic conditions			X
Alcoholic psychoses		X	X
Drug psychoses		X	X
Delirium		X	
Dementia			X

Intoxication and/or withdrawal			
Alcohol			X
Hallucinogens		X	X
Opioids	X	X	X
Phencyclidine		X	
Sedatives/Hypnotics/Anxiolytics	X	X	X
Sympathomimetics and cocaine	X	X	X
<b>14.6 Patterns of Violence/Abuse/Neglect</b>			
Domestic			
Child, spouse, elder		X	
Homicidal Risk	X	X	
Sexual assault	X	X	
Staff/Patient safety		X	
<b>14.7 Personality Disorders</b>			X
<b>14.8 Psychosomatic Disorders</b>			
Hypochondriasis			X
Hysteria/Conversion			X

<b>15.0 RENAL AND UROGENITAL DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>15.1 Acute and Chronic Renal Failure</b>	X	X	X
<b>15.2 Complications of Renal Dialysis</b>	X	X	
<b>15.3 Infection</b>			
Cystitis			X
Pyelonephritis		X	
<b>15.4 Male Genital Tract</b>			
Genital lesions			X
Hernia		X	X
Hydrocele			X
Inflammation/Infection			
Epididymitis/Orchitis		X	X
Gangrene of the scrotum (Fournier's gangrene)	X	X	
Prostatitis		X	X
Urethritis			X
Structural			
Paraphimosis/Phimosis		X	
Priapism		X	
Prostatic hypertrophy (BPH)			X
Torsion of testis		X	
Testicular masses			X
Undescended testicle			X
<b>15.5 Structural Disorders</b>			
Calculus of urinary tract		X	X

<b>16.0 THORACIC-RESPIRATORY DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>16.1 Acute Upper Airway Disorders</b>			
Infections			
Bacterial tracheitis		X	X
Croup		X	
Epiglottitis	X	X	

Pertussis/Whooping cough	X	X	
Upper respiratory infection			X
Obstruction	X		
Trauma	X	X	
Tracheostomy/Complications	X	X	
<b>16.2 Disorders of Pleura, Mediastinum, and Chest Wall</b>			
Costochondritis			X
Hemothorax	X	X	
Pleural effusion		X	X
Pleuritis			X
Pneumomediastinum		X	
Pneumothorax			
Simple		X	
Tension	X		
<b>16.3 Noncardiogenic Pulmonary Edema</b>	X	X	
<b>16.4 Obstructive/Restrictive Lung Disease</b>			
Asthma/Reactive airway disease	X	X	
Bronchiolitis (RSV)		X	X
Bronchopulmonary dysplasia		X	X
Chronic obstructive pulmonary disease	X	X	X
Cystic fibrosis	X	X	X
Environmental/Industrial exposure including acute and chronic nature	X	X	X
Foreign body	X	X	
<b>16.5 Physical and Chemical Irritants/Insults</b>			
Toxic effects of gases, fumes, vapors	X	X	X
<b>16.6 Pulmonary Embolism/Infarct</b>	X	X	
<b>16.7 Pulmonary Infections</b>			
Lung abscess		X	
Pneumonia			
Aspiration	X	X	
Infectious	X	X	X
Pulmonary tuberculosis		X	
<b>16.8 Tumors</b>			
Breast			X
Chest wall			X
Pulmonary		X	X

<b>17.0 PHARMACOLOGY</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>17.1 Basic principles of pharmacology</b>	X	X	X
Drug legislation and control	X	X	X
Drug naming and classification	X	X	X
Drug schedules	X	X	X
Drug storage and security	X	X	X
Drug administration routes	X	X	X
Autonomic pharmacology	X	X	X
Drug metabolism and excretion	X	X	X
Mechanisms of drug action	X	X	X
Phases of drug activity	X	X	X
Pharmacokinetics	X	X	X

Drug response relationships	X	X	X
Factors affecting response	X	X	X
Predictable responses	X	X	X
Iatrogenic responses	X	X	X
Unpredicted adverse responses	X	X	X
Drug interactions	X	X	X
Drug toxicity	X	X	X
<b>17.2 Drug and Chemical Classes</b>			
Analgesics			
Acetaminophen		X	
Nonsteroidal anti-inflammatories		X	X
Opiates and related narcotics	X	X	
Salicylates	X	X	
Alcohol			
Ethanol	X	X	X
Glycol	X	X	
Isopropyl	X	X	X
Methanol	X	X	
Amphetamines	X	X	
Anesthetics	X	X	
Anticholinergics/Cholinergics	X	X	
Anticoagulants	X	X	
Anticonvulsants	X	X	
Antidepressants	X	X	
Antiparkinsonism drugs		X	
Antihistamines and antiemetics		X	
Antipsychotics	X	X	
Beta Blockers	X	X	
Bronchodilators		X	
Carbon monoxide	X	X	
Cardiovascular drugs			
Antiarrhythmics	X	X	
Antihypertensives	X	X	
Beta blockers	X	X	
Calcium channel blockers	X	X	
Caustic agents			
Acid	X	X	
Alkali	X	X	
Cocaine	X	X	X
Cyanides, hydrogen sulfide	X	X	
Hallucinogens		X	X
Hazardous materials	X	X	
Heavy metals	X	X	
Herbicides, insecticides, and rodenticides	X	X	
Household/Industrial chemicals	X	X	X
Hormones/Steroids		X	X
Hydrocarbons	X	X	
Hypoglycemics/Insulin	X	X	
Inhaled toxins	X	X	
Iron	X	X	

Isoniazid	X	X	
Marine toxins	X	X	
Methemoglobinemia	X	X	
Mushrooms/Poisonous plants	X	X	
Neuroleptics	X	X	
Non-prescription drugs		X	X
Nutritional supplements herbal agents		X	X
Paralytics	X		
Organophosphates	X	X	
Recreational drugs	X	X	X
Sedatives/Hypnotics	X	X	
Stimulants/Sympathomimetics	X	X	
Strychnine	X	X	
<b>17.3 Toxicology</b>			
General concepts of toxicology	X	X	X
Toxidromes			
Narcotics	X	X	X
Organophosphates	X	X	
Recreational drugs	X	X	X
Carbon monoxide	X	X	X
<b>17.4 Hazardous materials</b>	X		

<b>18.0 TRAUMATIC DISORDERS</b>			
	<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
<b>18.1 Trauma</b>			
<b>Abdominal trauma</b>			
Diaphragm	X	X	
Hollow viscus	X	X	
Penetrating	X	X	
Retroperitoneum	X	X	
Solid organ	X	X	
Vascular	X	X	
<b>Chest trauma</b>			
Aortic dissection/Disruption	X		
Contusion			
Cardiac	X	X	X
Pulmonary	X	X	
Fracture			
Clavicle		X	X
Ribs/Flail chest	X	X	X
Sternum		X	X
Hemothorax	X	X	
Penetrating chest trauma	X	X	
Pericardial tamponade	X		
Pneumothorax			
Simple		X	
Tension	X		
<b>Cutaneous injuries</b>			
Avulsions		X	X
Bite wounds		X	X
Burns			

Electrical	X	X	X
Chemical	X	X	X
Thermal	X	X	X
Lacerations		X	X
Puncture wounds		X	X
<b>Facial fractures</b>			X
Dental		X	X
Le Fort	X	X	X
Mandibular		X	X
Orbital		X	X
<b>Genitourinary trauma</b>			
Bladder		X	
External genitalia		X	
Renal		X	
Ureteral		X	
<b>Head trauma</b>			
Intracranial injury	X	X	
Scalp lacerations/Avulsions		X	X
Skull fractures		X	X
<b>Injuries of the spine</b>			
Dislocations/Subluxations	X	X	
Fractures	X	X	X
Sprains/Strains			X
<b>Lower extremity bony trauma</b>			
Dislocations/Subluxations		X	
Fractures (open and closed)		X	X
<b>Neck trauma</b>			
Laryngotracheal injuries	X	X	
Penetrating neck trauma	X	X	
Vascular injuries			
Carotid artery	X	X	
Jugular vein	X	X	
<b>Ophthalmologic trauma</b>			
Corneal abrasions/Lacerations		X	X
Corneal burns			
Acid		X	
Alkali		X	
Ultraviolet		X	X
Eyelid lacerations		X	
Foreign body		X	
Hyphema		X	
Penetrating globe injuries		X	
Retinal detachments		X	
Traumatic iritis		X	X
<b>Otologic trauma</b>			
Hematoma		X	X
Perforated tympanic membrane			X
<b>Pediatric fractures</b>			
Epiphyseal		X	X
Greenstick		X	

Torus			X
<b>Pelvic fracture</b>	X	X	
<b>Soft-tissue extremity injuries</b>			
Amputations/Replantation		X	
Compartment syndromes		X	
High-pressure injection		X	
Injuries to joints		X	X
Knee		X	X
Penetrating		X	
Penetrating soft-tissue		X	X
Periarticular			X
Sprains and strains			X
Tendon injuries			
Lacerations/Transections		X	
Ruptures		X	
Achilles tendon		X	
Patellar tendon		X	
<b>Spinal cord/nervous system trauma</b>			
Cauda equina syndrome		X	
Injury to nerve roots		X	X
Peripheral nerve injury		X	X
Spinal cord injury	X	X	
Spinal cord injury without radiologic abnormality (SCIWORA)		X	
<b>Upper extremity bony trauma</b>			
Dislocations/Subluxations		X	
Fractures (open and closed)		X	X
<b>18.2 Trauma in Pregnancy</b>			
Abruptio placenta	X	X	
Perimortum C-section	X		
Premature labor		X	
Rupture of uterus	X		
<b>18.3 Multi-system Trauma</b>	X	X	
Blast injury	X	X	

### Appendix 3: Patient Acuity Definitions

**Note:** These definitions match the *Model of Clinical Practice of Emergency Medicine* and acknowledge that the patient's acuity level is essential for identifying priorities for care in the out-of-hospital setting.

<b>Critical</b>	<b>Emergent</b>	<b>Lower Acuity</b>
Patient presents with symptoms of a life-threatening illness or injury with a high probability of mortality if immediate intervention is not begun to prevent further airway, respiratory, hemodynamic and/or neurologic instability.	Patient presents with symptoms of an illness or injury that may progress in severity or result in complications with a high probability for morbidity if treatment is not begun quickly.	Patient presents with symptoms of an illness or injury that have a low probability of progression to more serious disease or development of complications.



## Appendix 4: Out-of-hospital/EMS Task Definitions/Elements

TASKS	DEFINITIONS/ELEMENTS
Operational readiness	Vehicle operations, staffing, communications network, equipment & supplies, medical oversight, legal/ethical, standard operating procedures/guidelines, Special Ops, rescue; MCI/ICS
Scene management	Environment, hazards, violence, safety & scene stabilization, BSI/PPE, security, additional or specialized resources, access, communications
Pre-arrival care	Home remedies, lay rescuer, EMD, first on scene; AED, on-scene physician
Primary assessment & emergency stabilization	ABCs/qualitative assessment of vital functions, general initial impression, initiate treatment/procedures needed to preserve life
Secondary assessment	ABCs, history & physical exam, mechanism of injury, vital signs, ABGs
Modifying factors	Age, gender, race, ethnicity, weight, special needs/disabilities, communication barriers (language, hearing impairment, etc.), religious beliefs, sexual orientation, underlying disease, mental status, family dynamics or bystanders, environment, available resources
Professional issues	Legal/ethical, jurisdictional, education (primary & CME), CQI/data analysis/research, certification/licensure, interaction with other health care professionals, wellness/stress reduction, disease exposure, impairment issues, team performance, professional associations, health promotion, role in continuum of care, community health, scope of practice, death & dying, DNR, advanced directives, family dynamics, reportable diseases or conditions, applicable regulations
Assessment tools & adjuncts	Stethoscope, sphygmomanometer, BP monitoring devices, ETCO <sub>2</sub> , pulse oximetry, physical exam skills, thermometer, EKG, 12-lead EKG, glucometer, field lab tests
Differential diagnosis and field impression	Based on clinical presentation & assessment identify potential causes. Clinical judgment/critical thinking
Therapeutic interventions	Pharmacological & nonpharmacological therapy, procedures, therapeutic communication/counsel.
Reassessment	On-going assessment, evaluate & re-evaluate effectiveness of interventions

Communication/consultation	Direct/indirect, patient/family, collaboration (M.D.s, specialty consultants), receiving facility notification, EMTALA, media, dispatch.
Documentation	Written/verbal patient care reporting, transfer & release of information; reportable diseases/conditions/situations, standardized format (minimum data set), privacy issues, CQI
Disposition	EMTALA, diversion destination issues, appropriate facility, non-transport issues, specialty transport (aeromedical), dead on scene, termination of resuscitation, community resources
Prevention & education	Injury prevention, public education, community resources (social services, support groups, shelters, mental health), federal/state regulations.
Multitasking & team management	ICS/MCI, risk management, multiple agency response, special operations, ICS, domestic preparedness, homeland security.

## Appendix 5: Matrix of out-of-hospital/EMS tasks by patient acuity

**Note:** This matrix is not intended as a chronological listing of tasks but rather recognizes that the patient's acuity level is essential for identifying priorities for care and guiding on-scene decision making as well. Task elements and definitions are enumerated in Appendix 4.

TASKS	PATIENT ACUITY		
	CRITICAL	EMERGENT	LOWER ACUITY
<ul style="list-style-type: none"> <li>• Operational readiness</li> <li>• Scene management</li> <li>• Pre-arrival care</li> <li>• Primary assessment/emergency stabilization</li> <li>• Secondary assessment</li> <li>• Modifying factors</li> <li>• Professional issues</li> <li>• Assessment tools &amp; adjuncts</li> <li>• Differential diagnosis/field impression</li> <li>• Therapeutic interventions</li> <li>• Reassessment</li> <li>• Communication &amp; consultation</li> <li>• Disposition</li> <li>• Documentation</li> <li>• Multitasking &amp; team management</li> <li>• Prevention &amp; education</li> </ul>			

## **Appendix 6: Procedures and Skills Integral to the Practice of Emergency Medical Services**

The *Core Content* specifies those procedures/skills that are medically acceptable in the out-of-hospital setting. This list should not be considered restrictive with the exception of those skills that should be prohibited. The task force felt strongly the “prohibited skills” should not be included as part of the scope of practice for any level of nonphysician EMS provider.

This list outlines the general principles of skills, not specifics techniques.

### **AIRWAY TECHNIQUES**

Airway adjuncts

Airway Maneuvers

Alternate Airway Devices

Cricothyrotomy

Obstructed Airway Clearance

Intubation

1. Nasotracheal
2. Orotracheal
3. Pharmacological facilitation
4. Confirmation procedures

Oxygen Delivery Systems

Suction

Ventilation – assisted / mechanical

**Anesthesia (Local)**

**Pain Control & Sedation**

**Blood and Component Therapy Administration**

**Diagnostic Procedures**

Blood chemistry analysis

Capnography

Pulmonary function measurement

Pulse Oximetry

Ultrasonography

**Genital/Urinary**

Bladder catheterization

1. Foley catheter

Testicular detorsion

**HEAD AND NECK**

Control of epistaxis

1. Anterior packing

Tooth replacement

**Hemodynamic Techniques**

Arterial catheter insertion and maintenance

Central venous access

Intraosseous access & infusion

Peripheral venous access & maintenance

**Hemodynamic monitoring**

12-lead ECG monitoring

**Obstetrics**

Delivery of newborn

**Other Techniques**

Bleeding control

Foreign body removal

Incision/Drainage

Intravenous therapy

Medication administration

Nasogastric tube

Pericardiocentesis

Pleural decompression

Patient restraint

Sexual assault victim management

Trephination of nails

Wound closure techniques

Wound management

**Resuscitation**

Cardiopulmonary resuscitation (CPR) (all ages)

**Skeletal Procedures**

Care of the amputated part

Fracture/Dislocation immobilization techniques

Fracture/Dislocation reduction techniques

Spine immobilization techniques

**Thoracic**

Cardiac pacing

Defibrillation/Cardioversion

Thoracostomy

**Body Substance Isolation / PPE**

**Lifting and moving techniques**

**\*\*MEDICALLY UNACCEPTABLE PROCEDURES and SKILLS\*\***

**Burr holes**

**Demand valve devices without flow-restricted heads**

**EOA/EGTA**

**Field Amputation**

**Ipecac**

**Perimortum C-section**

## **Appendix 7: Other Components of the Practice of EMS**

### **Administration**

- Diversity
- Finance and reimbursement
- Health care systems
- Licensing or certification/credentialing
- Negotiation

### **Critical care activities**

- Critical care transport – ground and air medical
  - 1. Flight physiology
- Interfacility issues
- Neonatal transport
- High-risk OB transport

### **Disaster and domestic preparedness issues (WMD)**

- Emergency management
- MCI/Disaster preparedness
- Terrorism preparedness

### **Disposition issues**

- ED transport
- Nontransport
- Alternative destination
- Against medical advice
- Transfer of care
- Medical Examiner investigation

### **Education**

- Education principles & practices
- EMS personnel education
- Patient education
- Public education

### **EMS safety & well-being**

### **Episodic/nonacute care activities**

- Patient home assistance
- Social assistance
- Home health care assistance

### **Hazmat decontamination and treatment**

### **Interagency cooperation**

## **Legal and regulatory issues**

Accreditation

1. Training programs
2. Agencies

Compliance

1. Health and safety standards
2. Reimbursement

Confidentiality

1. HIPAA

Consent and Refusal of Care

Emergency Medical Treatment and Active Labor Act (EMTALA)

Liability and Malpractice

Reporting (Assault, Communicable Diseases, surveillance programs)

Forensic issues

## **Management and training**

Quality management / performance improvement

Service training officer development

Field training officer development

Field supervision

General EMS service operations

Communications and interpersonal issues

Teamwork

Medical director

Nonprofit and volunteer management

Basic research design, methods and interpretation

## **Medical oversight**

Online & off-line

Protocol development

Qualifications of the medical director

Roles and responsibilities of the medical director

## **Miscellaneous**

End of life care – termination of resuscitation

Life span development

Organ and tissue procurement

Patients with special health care needs

Post-resuscitative care

## **Nontraditional environments**

Nursing homes

Physician offices

Wilderness

Prolonged transport

Rural EMS

Occupational/industrial settings

## **Operations**

- Access and response
- Crime scene operations
- Dispatch activities
- Documentation
- Emergency vehicle operations
- EMS operations command and control
  1. ICS
  2. Strategies and tactics
  3. Command and control
- Equipment use and maintenance
- Extrication/rescue
  1. Machinery
  2. Vehicle
  3. Hazardous terrain / environments
- System design and management

## **Professionalism**

- Ethics
- Impairment
- Leadership (leading, directing and mentoring)
- Personal well-being
- Professional development and learning
- Death and dying issues
- Cultural diversity
- Societal issues
  1. Homeless
  2. Co-dependency issues - addiction
  3. Social/economic issues – financial burdens

## **Public Health Issues**

- Public health principles
- Injury prevention
- Health promotion
  1. Care of chronic illness
  2. Community health monitoring
- Immunization programs
- Epidemiology
- Surveillance
- Public education
- Home health care
  1. Post-discharge follow-up

## **Special events and mass gathering**

## **Specialty care issues**

- TEMS
- Agrimedecine
- Fire ground support
- USAR/confined space
- Hazmat medicine



## **Appendix 8: Documents used in the preparation of the National EMS Core Content**

American Board of Emergency Medicine and American College of Emergency Physicians: *The Model of the Clinical Practice of Emergency Medicine*. East Lansing, Michigan: 2001.

National Registry of Emergency Medical Technicians: *Practice Analysis for National Registry Emergency Medical Technicians*. Columbus, Ohio: 2000.

Paramedic Association of Canada: *National Occupational Competency Profile Advanced Care Paramedic*. Kamloops, British Columbia, Canada: 2000.

United States Department of Transportation, National Highway Traffic Safety Administration and United States Department of Health and Human Services Public Health Services, Health Resources and Services Administration, Maternal and Child Health Bureau: *Emergency Medical Services Agenda for the Future*. Washington, DC: 1996.

United States Department of Transportation, National Highway Traffic Safety Administration and United States Department of Health and Human Services Public Health Services, Health Resources and Services Administration, Maternal and Child Health Bureau: *Emergency Medical Services Education Agenda for the Future: A Systems Approach*. Washington, DC: 2000.





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