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National Core Content:

The Domain of EMS Practice.

August 2003

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The Vision

With financial and administrative support provided by 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. Highly regarded and widely read, this 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).

Designed for use by public and private stakeholders at all levels, the intent of the *Agenda* was to create a common vision for the future of EMS and thus help guide planning, as well as decision and policy making regarding EMS, whenever and wherever such plans, decisions and policies were being made. The *Agenda* addressed 14 attributes of EMS, including the EMS education system.

The *Agenda* provided the following global vision for EMS in the future:

> *"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."*

As a result, another group was convened to apply that vision to the process and content of EMS Education. In 2000, having expanded their goal to include defining both the elements of the education system and the interrelationships necessary to achieve the vision of the *Agenda*, the *EMS Education Agenda for the Future: A Systems Approach* was published.

The *Education Agenda* proposed a comprehensive integrated multidisciplinary approach for a national EMS education process with five integrated primary components: National EMS Core Content, National EMS Scope of Practice Model, National EMS Education Standards, National EMS Education Program Accreditation, and National EMS Certification.

As a result of the plan outlined in the *Education Agenda*, and again with the support of NHTSA and HRSA/MCHB, the National Core Content Task Force was established in the summer of 2001. The initial meeting of this body was delayed as a result of the terrorist assaults on the United States of September 11, 2001, and did not convene until early 2002. Meeting at intervals over the next year, this document, *National Core Content: The Domain of EMS Practice* reflects the deliberations of that body in defining the universal body of EMS knowledge and will form the foundation for the subsequent development of the National EMS Scope of Practice Model.

Introduction

The *Emergency Medical Services Education Agenda for the Future: A Systems Approach* was developed by a multidisciplinary expert group of EMS education representatives drawn from national EMS organizations with support from the National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration's Maternal Child Health Bureau (HRSA/MCHB). Over a two year period beginning in January 1998, the Task Force assessed the current EMS education practice and identified areas where the process could be improved. Built on concepts outlined in the 1996 *EMS Agenda for the Future,* the Task Force constructed a comprehensive integrated plan for a national EMS education process that promises to improve its efficiency and efficacy, enhance the quality and consistency of EMS education, and ultimately, improve the competence and confidence of the entry-level EMS provider.

The completed vision describes a structured EMS education system with five integrated primary components: National EMS Core Content, National EMS Scope of Practice Model, National EMS Education Standards, National EMS Education Program Accreditation, and National EMS Certification. The first three components of this system are sequential, each consisting of national consensus documents and each closely integrated with the others. The Core Content document forms the foundation for the Scope of Practice Model, which lays out parameters for the Education Standards. (See diagram below.)

The *EMS Education Agenda* recommends that development of each component be an interdisciplinary process, with leadership by the appropriate groups and involvement of all stakeholders. The medical community was given the lead on Core Content, while system administrators will lead the Scope of Practice, and educators will lead the development of education standards. The lead groups (National Association of EMS Physicians, National Association of State EMS Directors, National Council of State EMS Training Coordinators and National Association of EMS Educators) for the three initial components met in the summer of 2001 to ensure that the content and format of the three documents would be coordinated and that the necessary information and resources would be available for their development.

After carefully considering the overall goal of the *Education Agenda* and the objectives of each component, it was determined that these components could be appropriately characterized as follows:

- the Core Content will specify <u>what</u> knowledge and skills are necessary for EMS providers to function effectively in the out of hospital setting, as well as <u>how</u> these tasks will be performed;

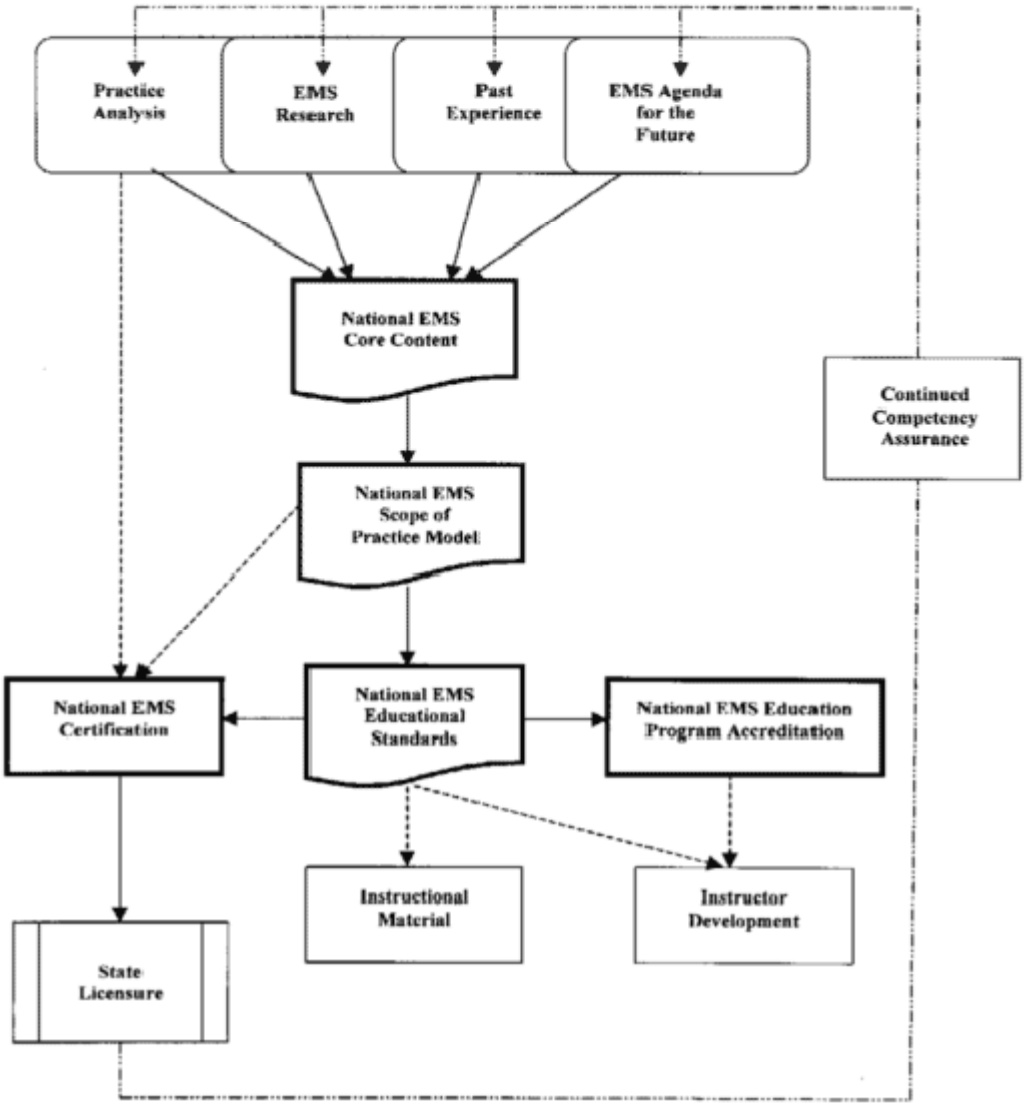
- the Scope of Practice Model will specify who (which level of practice) should have a specific knowledge base and perform specific tasks;

- the Education Standards will prescribe how to teach this knowledge and tasks.

After reviewing the objectives for each of the components as outlined in the EMS Education Agenda, it was decided that the format and level of detail in the Core Content needed to be changed slightly from previously developed NHTSA National Standard Curricula and from the example provided in the *EMS Education Agenda*. Whereas the *Education Agenda* suggested that the Core Content should list the knowledge and skill areas needed in the out-of-hospital environment, the group recognized that additional detail will be necessary to provide the developers of the Scope of Practice Model with sufficient information to perform their responsibilities. Specifically, the Core Content would need to include information regarding the relative criticality of each knowledge or skill area, as well as appropriate associated treatment modalities, so that informed decisions can be made by the Scope of Practice Task Force as to the appropriate level of practice for each task.

The initial meeting of the Core Content Task Force was delayed as a result of the terrorist assaults on the United States of September 11, 2001, and did not convene until early 2002. Meeting at intervals over the next year, this document, *National Core Content: The Domain of EMS Practice* reflects the deliberations of that body in defining the universal body of EMS knowledge and will form the foundation for the subsequent development of the National EMS Scope of Practice Model.

EMS Education System Components



Source: *EMS Education Agenda: A Systems Approach*, page 36.

Process

With financial and administrative support from the National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration's Maternal Child Health Bureau (HRSA/MCHB), and similar to the process used to develop the *Education Agenda,* the *National Core Content: Domain of EMS Practice* was developed by a multidisciplinary expert group of EMS representatives drawn from national EMS medical, administrative and educator organizations.

The initial meeting of the Core Content Task Force, under the leadership of the National Association of EMS Physicians, was delayed as a result of the terrorist assaults on the United States of September 11, 2001, and did not convene until March 2002. Meeting at intervals over the next year, this document, *National Core Content: The Domain of EMS Practice* reflects the deliberations of that body in defining the universal body of EMS knowledge and will form the foundation for the subsequent development of the National EMS Scope of Practice Model.

Considerable time was spent at the initial meeting clarifying the principles that would guide the development of the Core Content. The following concepts were agreed upon by consensus:

- A vision that this is a continuous and dynamic process that will outlive the product and recognizes that EMS is the safety net for health care for the citizens of the United States.

- Core content is a medical peroration and thus is appropriately led by the medical community. However, it is imperative that medical input be incorporated at every level of the process, recognizing that the Operational Medical Director (OMD) determines local agency scope of practice and is integral to system development and maintenance.

- Core Content should represent the universal body of knowledge for EMS, yet must insure controlled flexibility to be able to incorporate the latest evidence-based medical advances in practice without frequently reconvening the entire Task Force.

- Core Content does not represent a minimum level of knowledge and competency.

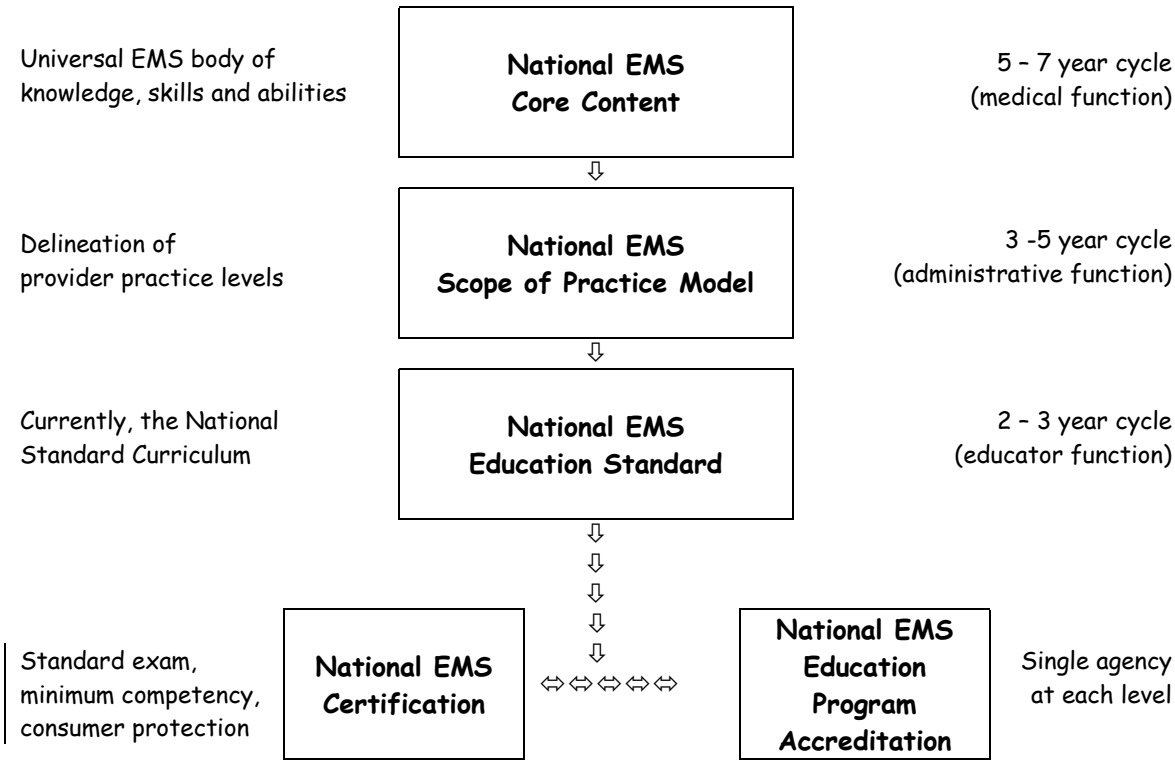
- Core Content reflects the ENTIRE domain of out of hospital medical care providers who do not function as independent practitioners,

including all potential levels of out of hospital practitioner from certified First Responder up to and including critical care transport paramedic and such expanded scope activities that the Scope of Practice Task Force feels appropriate, either currently or in the future.

- Recognize that the entire domain will not be practiced in every state and location nor will it be immediately adopted in its entirety. It will take time to realize the reality of the entire domain based on the local/state needs and resources.

- Gregg Margolis, Principal Investigator for Scope of Practice, suggested that the role of this Task Force is to "build the fence that defines the parameters of EMS" citing the University of California-San Francisco's Profiling the Professions: Model for Emerging Health Professions that states the critical first step is to define the purpose of the profession.

The integrative and dynamic nature of the *Education Agenda* model is evidenced by this diagram.



The Core Content Task Force spent considerable time reviewing the Emergency Medicine Clinical Practice Model to help focus on all potential aspects of the domain and as a potential format model to follow. This model was developed by reviewing physician tasks for a diverse variety of patient presentations (signs and symptoms) and pathophysiology within the framework of patient acuity. The rationale for inclusion of signs/symptoms, in addition to pathophysiology, is that the vast majority of patients are not diagnosed at the time of their presentation to EMS. After a considerable amount of animated discussion surrounding the utilization of this model as a template for the Core Content, it was agreed that signs/symptoms were a logical starting point that fit well with the assessment-based model that has been used in EMS education in recent years. It was acknowledged by the Task Force, however, that not all EMS presentations completely fit nicely into the assessment-based (signs and symptoms) model.

This project was undertaken at a unique point in the history of health care education. The use of an interdisciplinary process as well as the decision to accept the Model of Clinical Practice of Emergency Medicine* as a starting point for the Core Content is fortuitous in that by adherence to a medical model it further aligns the EMS community with the medical and emergency medical community. Also, the use of common terminology in EMS education that is consistent with other health care education is going to enhance the delivery of patient care and the maturation of EMS as a profession.

The Model of Clinical Practice of Emergency Medicine is a consensus document that describes the process of the clinical practice of emergency medicine as well as the content knowledge one must possess to practice emergency medicine. It contains multiple components (the Matrix and the Listing of Conditions and Components) which are complementary. The Listing of Conditions and Components represents the universal body of knowledge one must possess to practice emergency medicine. The Matrix includes definitions of patient acuity, and a listing of physician-patient interactions that collectively describe the process of delivery of patient care in the emergency department setting. The patient acuity is fundamental to determining the sequence that the physician tasks will be carried out in. Taken together the Matrix represents how an emergency physician modifies the tasks necessary for patient care. Collectively as described in the Model, to practice emergency medicine the physician must first master the Listing of Conditions and Components, determine the level of criticality when first assessing a patient and perform the physician tasks in an order dependent on the criticality to provide patient care.

(* Available from the American Board of Emergency Medicine: www.abem.org)

To develop the EMS Core Content, the Model of Clinical Practice of Emergency Medicine matrix and listing of conditions and components was considered on an item by item basis to determine the appropriateness of inclusion of each item in the EMS Core Content. Definitions for patient acuity and tasks were developed consistent with out-of-hospital care components of practice. Much like to Model of the Clinical Practice of Emergency Medicine, taken together these three components of the EMS Core Content describe the knowledge content and process of provision of patient care in the out of hospital setting.

The following principles guided that decision making process:

- Criticality relates to patient presentation and not to the degree of emphasis that needs to be placed on the topic during instruction.

- A differential diagnosis needs to be developed only in as far as to allow the EMS provider to determine what treatment might be harmful for the items in the differential.

- EMS education is a process that is taught in the form of building blocks to allow the EMS provider to integrate knowledge to appropriately care for the patient.

It should be noted that the Core Content does not break out specialty patient groups (such as pediatrics, geriatrics, cardiac, trauma, technology-dependant patients, etc) as specific topic areas. Issues relating to those patient populations are addressed in appropriate areas of the core content. It is also expected that those patient populations will be addressed in more detail with the scope of practice and educational guidelines as developed under the EMS Education Agenda.

Conclusion:

With the the development of this document to define the entire DOMAIN of EMS activities as outlined in the EMS Agenda for the Future, based on signs and symptoms and potential patient criticality, the Task Force hopes to provide the Scope of Practice Task Force with the tools to approach determination of specifics of care to be provided by the specific levels of EMS personnel.

Table 1 Out of Hospital/EMS 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.

Critical	Emergent	Lower Acuity
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.

Table 2 **MATRIX OF OUT OF HOSPITAL/EMS TASKS BY PATIENT ACUITY**

Note: This matrix is not intended to be viewed 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 on Table 3.

TASKS	PATIENT ACUITY		
	CRITICAL	EMERGENT	LOWER ACUITY
• Operational readiness • Scene management • Pre-arrival care • Primary assessment/emergency stabilization • Secondary assessment • Modifying factors • Professional issues • Assessment tools & adjuncts • Differential diagnosis/field impression • Therapeutic interventions • Reassessment • Communication & consultation • Disposition • Documentation • Multi-tasking & team management • Prevention & education			

Table 3. 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, $ETCO_2$, 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 & non-pharmacological therapy, procedures, therapeutic communication/counsel.
Reassessment	On-going assessment, evaluate & re-evaluate effectiveness of interventions
Communication/consultation	Direct/indirect, patient/family, collaboration (MDs, 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.
Multi-tasking & team management	ICS/MCI, risk management, multiple agency response, special operations, ICS, domestic preparedness, homeland security.

Appendix

Listing of Conditions and Components

1.0 **Patient Complaints and Presenting Signs and Symptoms**

	Critical	Emergent	Lower Acuity
1.1 **General**			
Altered mental status	X	X	X
Anxiety		X	X
Apnea	X		
Ataxia		X	x
Back pain	X	X	X
Bleeding	X	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/Dysthesia		X	X
Poisoning	X	X	X
Pruritus			X
Rash		X	X

	Shock	X		
	Syncope	X	X	X
	Tremor			x
	Weakness		X	X
1.2	**Abdominal/Pelvis**			
	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
1.3	**Chest**			
	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	
1.4	**Head and Neck**			
	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

2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS

	Critical	Emergent	Lower Acuity
2.1 Abdominal Wall			
Hernias		X	X
2.2 Esophagus			
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	
2.3 Liver			
Cirrhosis		X	X
Hepato-renal failure		X	
Infectious disorders		X	X
Hepatitis		X	X
Tumors		X	X
2.4 Gall Bladder and Biliary Tract			
Cholecystitis			X
Cholelithiasis/Choledocholithiasis		X	x
2.5 Pancreas			
Pancreatitis	X	X	
Tumors		X	X
2.6 Peritoneum	X	X	
Peritonitis			

2.7 **Stomach**			
Inflammatory disorders			
Gastritis		X	X
Peptic ulcer disease		X	X
Hemorrhage	X	X	
Perforation	X	X	
Structural disorders			
Foreign body		X	X
2.8 **Small Bowel**			
Infectious disorders		X	X
Inflammatory disorders			
Gastroenteritis		X	X
Regional enteritis/Crohn's disease		X	X
Obstruction			
Mechanical		X	
Paralytic ileus		X	
Structural disorders			
Aortoenteric fistula	X		
Congenital anomalies		X	X
Vascular insufficiency	X	X	
2.9 **Large Bowel**			
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	X	X	
Tumors		X	X

2.10 **Rectum and Anus**

Infectious disorders		
abscess	X	X
Inflammatory disorders		
Proctitis		X
Structural disorders		
Foreign body	X	X
Hemorrhoids		X
Rectal prolapse	X	

3.0 CARDIOVASCULAR DISORDERS

	Critical	Emergent	Lower Acuity
3.1 Cardiopulmonary Arrest	X		
SIDS	X		
Other causes	X		
3.2 Congenital Abnormalities of the Cardiovascular System			
Disorders due to anatomic anomalies	X	X	X
3.3 Disorders of Circulation			
Arterial			
Aneurysm	X	X	X
Aortic dissection	X		
Thromboembolism		X	
Venous			
Thromboembolism	X	X	
3.4 Disturbances of Cardiac Rhythm			
Cardiac dysrhythmias	X	X	X
Ventricular	X	X	
Supraventricular	X	X	X
Conduction disorders	X	X	X
3.5 Diseases of the Myocardium, Acquired			
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
3.6 Diseases of the Pericardium			
Pericardial tamponade	X	X	
Pericarditis		X	X

3.7	**Endocarditis**	X	X	
3.8	**Hypertensive Emergencies**	X	X	
3.9	**Hypotensive Emergencies**			
	Hypovolemic	X	X	
	Distributive	X	X	
	Obstructive	X	X	
3.10	**Valvular Disorders**	X	X	X

4.0 CUTANEOUS DISORDERS

	Critical	Emergent	Lower Acuity
4.1 Cancers of the Skin			X
4.2 Decubitus Ulcer		X	X
4.3 Dermatitis			
Atopic			X
Contact			X
Eczema			X
Psoriasis			X
4.4 Infections			
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
4.5 Maculopapular Lesions			
Purpura		X	X
Urticaria		X	X
4.7 Vesicular/Bullous Lesions	X	x	

5.0 ENDOCRINE, METABOLIC, AND NUTRITIONAL DISORDERS

	Critical	Emergent	Lower Acuity
5.1 Acid-Base Disturbances			
Metabolic or respiratory			
Acidosis	X	X	
Alkalosis	X	X	X
Mixed acid-base balance disorder	X	X	
5.2 Adrenal Disease			
Corticoadrenal insufficiency	X	X	
5.3 Fluid and Electrolyte Disturbances			
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
5.4 Glucose Metabolism			
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
5.5 Nutritional Disorders			
Vitamin deficiencies			X
Wernicke-Korsakoff syndrome		X	
5.7 Pituitary Disorders			
Panhypopituitarism	X		
5.8 Thyroid Disorders			
Hyperthyroidism	X	X	X
Hypothyroidism		X	X
Thyroiditis		X	X

6.0 ENVIRONMENTAL DISORDERS

	Critical	Emergent	Lower Acuity
6.1 **Bites and Envenomation** (See 18.1)			
Arthropods		X	X
Insects			X
Spiders		X	X
Mammals		X	X
Human			
Rabies			
Marine organisms (See 17.1)	X	X	X
Snakes	X	X	X
6.2 **Dysbarism**			
Air embolism	X	X	
Barotrauma	X	X	X
Decompression syndrome	X	X	
6.3 **Electrical Injury** (See 18.1)	X	X	X
Lightning	X	X	
6.4 **High-Altitude Illness**			
Acute mountain sickness		X	X
Barotrauma of ascent		X	X
High-altitude cerebral edema	X	X	
High-altitude pulmonary edema	X	X	
6.5 **Submersion Incidents**			
Cold water immersion	X	X	
Near drowning	X	X	
6.6 **Temperature-Related Illness**			
Heat			
Heat exhaustion		X	X
Heat stroke	X	X	
Heat Cramps			X
Cold			
Frostbite		X	X
Hypothermia	X	X	

7.0 HEAD, EAR, EYE, NOSE, THROAT DISORDERS

	Critical	Emergent	Lower Acuity
7.1 Ear			
Foreign body		X	X
Impacted cerumen			X
Labyrinthitis			X
Meniere's disease			X
Otitis externa			X
Otitis media			X
Perforated tympanic membrane			X
7.2 Eye			
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	
7.4 Nose			
Epistaxis	x	x	X
Foreign body		x	X
Rhinitis			X
Sinusitis			X
7.5 Oropharynx/Throat			
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

8.0 HEMATOLOGIC DISORDERS

	Critical	Emergent	Lower Acuity
8.1 Blood Transfusion			
Complications	X	X	
8.2 Hemostatic Disorders			
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
8.3 Lymphomas		x	X
8.5 Red Blood Cell Disorders			
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	
8.6 White Blood Cell Disorders		X	X
Neutropenia			
Leukemia		x	X
Multiple myeloma		X	x
Pancytopenia	X	X	X

9.0 **IMMUNE SYSTEM DISORDERS**

	Critical	Emergent	Lower Acuity
9.1 **Collagen Vascular Disease**			
Raynaud's disease			X
Rheumatoid arthritis		x	X
Systemic lupus erythematosus		x	X
9.2 **HIV and Manifestations**	x	x	X
9.3 **Hypersensitivity**			
Allergic reaction		x	X
Anaphylaxis	X		
Angioedema	x	X	
Drug allergies	x	x	X
9.6 **Transplant-Related Problems**	x	x	X
Immunosuppression		x	X
Rejection	x	X	

10.0 SYSTEMIC INFECTIOUS DISORDERS

	Critical	Emergent	Lower Acuity
10.1 Bacterial			
Bacterial food poisoning		x	X
Botulism	X	X	
Chlamydia		x	X
Gonococcal infections		x	X
Meningococcemia	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	
10.2 Biologic Weapons	x	X	
Awareness level of current agents for all EMS personnel		X	
10.3 Fungal Infections		X	X
10.4 Protozoan – Parasites			
Malaria		X	
giardiasis			X
10.5 Tick-Borne			
Ehrlichiosis		X	
Lyme disease		X	
Rocky Mountain spotted fever		X	
10.6 Viral			
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

11.0 MUSCULOSKELETAL DISORDERS (NONTRAUMATIC)

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

12.0 NERVOUS SYSTEM DISORDERS

	Critical	Emergent	Lower Acuity
12.1 **Cranial Nerve Disorders**			X
Bell's palsy			X
Trigeminal neuralgia			X
12.2 **Demyelinating Disorders**	x	X	
Multiple sclerosis		X	
12.3 **Headache**	x	x	X
Muscle contraction			X
Vascular		x	X
12.4 **Hydrocephalus**		x	X
Normal pressure		x	X
VP shunt		X	
12.5 **Infections/Inflammatory Disorders**			
Encephalitis	x	X	
Meningitis			
Bacterial	x	X	
Viral		x	X
12.6 **Movement Disorders**		x	X
Dystonic reaction		x	X
12.7 **Neuromuscular Disorders**			
Guillain-Barré syndrome	X	X	
Myasthenia gravis	x	X	
Amyotrophic lateral sclerosis (ALS)			X
Muscular dystrophy			X
12.8 **Other Conditions of the Brain**			
Dementia			X
Parkinson's disease			X
12.9 **Seizure Disorders**	x	x	X
Febrile		x	X
Neonatal		X	
Status epilepticus	X		

Generalized, focal		X	X
12.10 **Spinal Cord Compression**	x	X	
12.11 **Stroke**			
Hemorrhagic			
Intracerebral	x	X	
Subarachnoid	x	X	
Ischemic	x	X	
12.12 **Transient Cerebral Ischemia**		x	X
12.13 **Tumors**		x	X

13.0 OBSTETRICS AND GYNECOLOGY

	Critical	Emergent	Lower Acuity
13.1 Female Genital Tract			
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
13.2 Normal Pregnancy			X
13.3 Complications of Pregnancy			
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	
13.4 High Risk Pregnancy	x	X	
13.5 Normal Labor and Delivery		x	X
13.6 Complications of Labor			
Fetal distress	x		
Premature labor (See 18.2)		X	
Premature rupture of membranes		X	
Rupture of uterus (See 18.2)	X		

13.7 **Complications of Delivery**		
Malposition of fetus	x	X
Nuchal cord	X	
Prolapse of cord	X	
13.8 **Postpartum Complications**		
Endometritis		X
Hemorrhage	X	X

14.0 PSYCHOBEHAVIORAL DISORDERS

	Critical	Emergent	Lower Acuity
14.1 Addictive Behavior			
Alcohol dependence			X
Drug dependence			X
Eating disorders		x	X
Substance abuse			X
14.2 Mood Disorders and Thought Disorders			
Acute Psychosis	x	X	
Bipolar disorder		x	X
Depression		x	X
Suicidal risk	x	X	
Grief reaction			X
Schizophrenia		x	X
14.3 Factitious Disorders			
Drug-seeking behavior			X
Munchausen's		X	X
14.4 Neurotic Disorders			
Anxiety/Panic			X
Obsessive compulsive			X
Phobic			X
Post-traumatic stress			X
14.5 Organic Psychoses			
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

14.6 **Patterns of Violence/Abuse/Neglect**			
Domestic			
Child, spouse, elder		X	
Homicidal Risk	x	x	
Sexual assault	X	X	
Staff/Patient safety		X	
14.7 **Personality Disorders**			X
14.8 **Psychosomatic Disorders**			
Hypochondriasis			X
Hysteria/Conversion			X

15.0 RENAL AND UROGENITAL DISORDERS

	Critical	Emergent	Lower Acuity
15.1 **Acute and Chronic Renal Failure**	x	x	X
15.2 **Complications of Renal Dialysis**	X	X	
15.4 **Infection**			
Cystitis			X
Pyelonephritis		X	
15.5 **Male Genital Tract**			
Genital lesions			X
Hernias		x	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
15.7 **Structural Disorders**			
Calculus of urinary tract		x	X

16.0 THORACIC-RESPIRATORY DISORDERS

	Critical	Emergent	Lower Acuity
16.1 Acute Upper Airway Disorders			
Infections			
Croup		X	
Epiglottitis	x	X	
Pertussis/Whooping cough	x	X	
Upper respiratory infection			X
Obstruction	X		
Trauma	X	X	
Tracheostomy/Complications	x	X	
16.2 Disorders of Pleura, Mediastinum, and Chest Wall			
Costochondritis			X
Hemothorax	X	X	
Pleural effusion		x	X
Pleuritis			X
Pneumomediastinum		X	
Pneumothorax			
Simple		X	
Tension	X		
16.3 Noncardiogenic Pulmonary Edema	x	X	
16.4 Obstructive/Restrictive Lung Disease			
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	
16.5 Physical and Chemical Irritants/Insults			
Toxic effects of gases, fumes, vapors	x	x	X
16.6 Pulmonary Embolism/Infarct	x	X	

16.7 **Pulmonary Infections**			
Lung abscess		X	
Pneumonia			
Aspiration	x	X	
Infectious	x	x	X
Pulmonary tuberculosis		X	
16.8 **Tumors**			
Breast			X
Chest wall			X
Pulmonary		x	X

17.0 **Pharmacology**

	Critical	Emergent	Lower Acuity
17.1 **Basic principles of pharmacology**	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
17.2 **Drug and Chemical Classes**			
Analgesics			
Acetaminophen		X	
Nonsteroidal anti-inflammatories (NSAIDS)		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	
17.3 Toxicology			
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
17.4 Hazardous materials	X		

18.0 **TRAUMATIC DISORDERS**

18.1 **Trauma**	Critical	Emergent	Lower Acuity
Abdominal trauma			
Diaphragm	X	X	
Hollow viscus	X	X	
Penetrating	X	X	
Retroperitoneum	X	X	
Solid organ	X	X	
Vascular	X	X	
Chest trauma			
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		
Cutaneous injuries			
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
Facial fractures			X
Dental		x	X

Le Fort	x	x	X
Mandibular		x	X
Orbital		x	X
Genitourinary trauma			
Bladder		X	
External genitalia		X	
Renal		X	
Ureteral		X	
Head trauma			
Intracranial injury	x	X	
Scalp lacerations/Avulsions		x	X
Skull fractures		x	X
Injuries of the spine			
Dislocations/Subluxations	x	X	
Fractures	x	x	X
Sprains/Strains			X
Lower extremity bony trauma			
Dislocations/Subluxations		X	
Fractures (open and closed)		x	X
Neck trauma			
Laryngotracheal injuries	x	X	
Penetrating neck trauma	x	X	
Vascular injuries			
Carotid artery	x	X	
Jugular vein	x	X	
Ophthalmologic trauma			
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
Otologic trauma			
Hematoma		x	X
Perforated tympanic membrane			X
Pediatric fractures			
Epiphyseal		x	X
Greenstick		X	
Torus			X
Pelvic fracture	x	X	
Soft-tissue extremity injuries			
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	
Spinal cord/nervous system trauma			
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	
Upper extremity bony trauma			
Dislocations/Subluxations		X	
Fractures (open and closed)		X	X

18.2 **Trauma in Pregnancy**		
Abruptio placenta	X	X
Perimortum C-section	X	
Premature labor		X
Rupture of uterus	X	
18.3 **Multi-system Trauma**	X	X
Blast injury	X	X

Appendix

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. The intent is that this list is not restrictive with the exception of those prohibited procedures/skills which the Task Force felt strongly should not be included as part of the scope of practice for any level of non-physician EMS provider.

This list outlines the principles of skills that must be accomplished – there are specific techniques by which to accomplish them. To outline those specifics goes beyond the scope of defining the domain as tasked to the Core Content Task Force.

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 for the Out of Hospital Setting

Burr holes

Demand valve devices without flow restricted heads

EOA/EGTA

Field Amputation (there was a lot of discussion at the Scope of Practice Meeting that this should be included in the curriculum – particularly as it relates to confined space rescue situations)

Ipecac

Perimortum c-section

Other Components of the Practice of EMS

Administration

- Diversity
- Finance and reimbursement
- Health care systems
- Licensing or ceritification / credentialling
- Negotiation

Critical care activities

- Critical care transport – ground and air medical
  - 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
- Non transport
- 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 / non-acute care activities

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

Hazmat decontamination and treatment

Interagency cooperation

Legal and Regulatory Issues

- Accreditation
  - Training programs
  - Agencies
- Compliance
  - Health and safety standards
  - Reimbursement
- Confidentiality
  - 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 interpersonnel issues
- Teamwork
- Medical director
- Non-profit and volunteer management
- Basic research design, methods and interpretation

Medical Oversight

- On-line & off-line
- Protocol development
- Qualifications of the medical director
- Roles and responsibilities of the medical director

Misc

- 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
    - ICS
    - Strategies and tactics
    - Command and control
- Equipment use and maintenance
- Extrication/rescue
    - Machinery
    - Vehicle
    - 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
    - Homeless
    - Co-dependency issues - addiction
    - Social/economic issues – financial burdens

Public Health Issues

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

Special events and mass gathering

Specialty care issues

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

Appendix

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REFERENCES

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 Childe Health Bureau: *Emergency Medical Services Agenda for the Future.* Washington, D.C.: 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 Childe Health Bureau: *Emergency Medical Services Education Agenda for the Future: A Systems Approach.* Washington, D.C.: 2000.