

## 2005 Model of the Clinical Practice of Emergency Medicine

The Core Content Task Force II created and endorsed the 2001 Model of the Clinical Practice of Emergency Medicine (EM Model) as published in the June 2001 *Annals of Emergency Medicine* and *Academic Emergency Medicine*.

The 2003 EM Model Review Task Force reviewed the 2001 EM Model, as requested by the Core Content Task Force II. Their work was published in the June 2005 *Annals of Emergency Medicine* and the June 2005 *Academic Emergency Medicine*.

The 2005 EM Model Review Task Force conducted the second review of the EM Model. Their work is published in the October 2006 issue of *Academic Emergency Medicine* and online-only in *Annals of Emergency Medicine*.

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In the 2005 EM Model that follows, all changes that resulted from the 2005 EM Model Review Task Force appear in ***bold italics*** with yellow shading. The changes are summarized in Figure 1.

### Preamble of the Core Content Task Force II, Adapted for the 2005 EM Model

In 1975, the American College of Emergency Physicians and the University Association for Emergency Medicine (now the Society for Academic Emergency Medicine; SAEM) conducted a practice analysis of the emerging field of Emergency Medicine. This work resulted in the development of the Core Content of Emergency Medicine, a listing of common conditions, symptoms, and diseases seen and evaluated in emergency departments. The Core Content listing was subsequently revised four times, expanding from 5 to 20 pages. However, none of these revisions had the benefit of empirical analysis of the developing specialty but relied solely upon expert opinion.

Following the 1997 revision of the Core Content listing, the contributing organizations felt that the list had become complex and unwieldy, and subsequently agreed to address this issue by commissioning a task force to re-evaluate the Core Content listing and the process for revising the list. As part of its final set of recommendations, the Core Content Task Force recommended that the specialty undertake a practice analysis of the clinical practice of Emergency Medicine. Results of a practice analysis would provide an empirical foundation for content experts to develop a core document that would represent the needs of the specialty.

Following the completion of its mission, the Core Content Task Force recommended commissioning another task force that would be charged with the oversight of a practice analysis of the specialty - Core Content Task Force II.

The practice analysis relied upon both empirical data and the advice of several expert panels and resulted in *The Model of the Clinical Practice of Emergency Medicine* (EM Model). The EM Model resulted from the need for a more integrated and representative presentation of the Core Content of Emergency Medicine. It was created through the collaboration of six organizations:

- American Board of Emergency Medicine (ABEM)
- American College of Emergency Physicians (ACEP)
- Council of Emergency Medicine Residency Directors (CORD)
- Emergency Medicine Residents' Association (EMRA)
- Residency Review Committee for Emergency Medicine (RRC-EM)
- Society for Academic Emergency Medicine (SAEM)

As requested by Core Content Task Force II, the six collaborating organizations reviewed the 2001 EM Model in 2002-2003 and developed a small list of proposed changes to the document. The changes were reviewed and considered by 10 representatives from the organizations, i.e., the 2003 EM Model Review Task Force. The Task Force's recommendations were approved by the collaborating organizations and were incorporated into the EM Model. The work of the Task Force was published in the June 2005 *Annals of Emergency Medicine* and *Academic Emergency Medicine*.

The next regular review of the EM Model occurred in 2005. The 2005 EM Model Review Task Force recommendations were approved by the collaborating organizations and are incorporated into this document.

There are three components to the EM Model: 1) an assessment of patient acuity; 2) a description of the tasks that must be performed to provide appropriate emergency medical care; and 3) a listing of common conditions, symptoms, and disease presentations. Together these three components describe the clinical practice of Emergency Medicine and differentiate it from the clinical practice of other specialties. The EM Model represents essential information and skills necessary for the clinical practice of Emergency Medicine by board certified emergency physicians.

Patients often present to the emergency department with signs and symptoms rather than a known disease or disorder. Therefore, an emergency physician's approach to patient care begins with the recognition of patterns in the patient's presentation that point to a specific diagnosis or diagnoses. Pattern recognition is both the hallmark and cornerstone of the clinical practice of Emergency Medicine, guiding the diagnostic tests and therapeutic interventions during the entire patient encounter.

***The Accreditation Council for Graduate Medical Education (ACGME) is implementing the ACGME Outcome Project to assure that physicians are appropriately trained in the knowledge and skills of their specialties. The ACGME derived 6 general (core) competencies thought to be essential for any practicing physician: patient care, medical knowledge, practice-based learning and improvement, interpersonal skills, professionalism, and systems-based practice.<sup>1</sup> To incorporate these competencies into the specialty of Emergency Medicine, an Emergency Medicine Competency Task Force determined how these competencies fit into the EM Model. The 6 general competencies are an integral part of the practice of Emergency Medicine and are embedded into the EM Model.<sup>2</sup>***

The EM Model is designed for use as the core document for the specialty. It will provide the foundation for developing future medical school and residency curricula, certification examination specifications, continuing education objectives, research agendas, residency program review requirements, and other documents necessary for the functional operation of the specialty. ***In conjunction with the EM Model, these 6 general competencies construct a framework for evaluation of physician performance and curriculum design to further refine and improve the education and training of competent emergency physicians.***

Figure 1  
**Summary of 2005 EM Model Task Force Changes**

**Preamble**

Added: The Accreditation Council for Graduate Medical Education (ACGME) is implementing the ACGME Outcome Project to assure that physicians are appropriately trained in the knowledge and skills of their specialties. The ACGME derived 6 general (core) competencies thought to be essential for any practicing physician: patient care, medical knowledge, practice-based learning and improvement, interpersonal skills, professionalism, and systems-based practice.<sup>1</sup> To incorporate these competencies into the specialty of Emergency Medicine, an Emergency Medicine Competency Task Force determined how these competencies fit into *The Model of the Clinical Practice of Emergency Medicine* (EM Model). The 6 general competencies are an integral part of the practice of Emergency Medicine and are embedded into the EM Model.<sup>2</sup> [unchanged text appears here] In conjunction with the EM Model, these 6 general competencies construct a framework for evaluation of physician performance and curriculum design to further refine and improve the education and training of competent emergency physicians.

<sup>1</sup> Accreditation Council for Graduate Medical Education (ACGME). ACGME Core Competencies. [ACGME Outcome Project Web site]. Available at: <http://www.acgme.org/outcome/comp/compfull.asp>.

<sup>2</sup> Chapman DM, Hayden S, Sanders AB, et al. Integrating the Accreditation Council for Graduate Medical Education core competencies into The Model of the Clinical Practice of Emergency Medicine. *Ann Emerg Med.* 2004;43:756-769, and *Acad Emerg Med.* 2004;11:674-685.

**Overview**

Added: The EM Model is a three-dimensional description of EM clinical practice. The three dimensions are patient acuity, physician tasks, and the listing of conditions and components. All of these dimensions are interrelated and employed concurrently by a physician when providing patient care. The EM physician's initial approach is determined by the acuity of the patient's presentation. While assessing the patient, the physician completes a series of tasks collecting information. Through this process, the physician is able to select the most likely etiology of the patient's problem from the listing of the conditions and components. Through continued application of all three components, the physician is able to arrive at the most probable diagnosis and subsequently implement a treatment plan for the patient. Hence, the three dimensions of the EM Model are interrelated and applied concurrently in the practice of Emergency Medicine.

**Table 3. Listing of Conditions and Components**

At the end of the introductory paragraph, change from 3) basic organizational structure to 3) other components of EM practice.

<b>5.8</b>	Hypothyroidism: added critical
<b>10.7</b>	Added: Emerging infections: critical and emergent
<b>Appendix 2.</b>	Operations: Patient Throughput and Crowding: added "and Crowding"
<b>Appendix 2.</b>	Performance Improvement: Patient Safety and Error Reduction: added "Patient Safety and"
<b>Appendix 2.</b>	Systems-based Management: Emergency Preparedness and Disaster Management: changed from Disaster Preparedness
<b>Appendix 2.</b>	Systems-based Management: added End-of-Life Issues

*Note: In the 2005 Model of the Clinical Practice of Emergency Medicine that follows this introduction, all changes that resulted from the 2005 EM Model Task Force review appear in **bold italics** with yellow shading.*

## OVERVIEW

There are multiple components of “The Model of the Clinical Practice of Emergency Medicine.” The components of the EM Model are given in two complementary documents: 1) the Matrix; and 2) the Listing of Conditions and Components.

***The EM Model is a three-dimensional description of Emergency Medicine (EM) clinical practice. The three dimensions are patient acuity, physician tasks, and the listing of conditions and components. All of these dimensions are interrelated and employed concurrently by a physician when providing patient care. The EM physician’s initial approach is determined by the acuity of the patient’s presentation. While assessing the patient, the physician completes a series of tasks collecting information. Through this process, the physician is able to select the most likely etiology of the patient’s problem from the listing of the conditions and components. Through continued application of all three components, the physician is able to arrive at the most probable diagnosis and subsequently implement a treatment plan for the patient. Hence, the three dimensions of the EM Model are interrelated and applied concurrently in the practice of Emergency Medicine.***

## MATRIX

The Matrix is organized along two principal dimensions: Patient Acuity and Physician Tasks (Table 1). The Matrix represents all possible physician-patient interactions that are determined by patient acuity and the tasks that may be performed during a patient encounter. Patient acuity is most fundamental in determining the priority and sequence of tasks necessary to successfully manage the presenting patient. The Matrix represents how an emergency physician modifies the tasks necessary to perform appropriate patient care based on the patient acuity.

### Patient Acuity

An emergency physician’s frame of reference in a patient encounter is fundamentally related to the acuity of the patient’s condition. Establishing the acuity level is essential for defining the context for action, the priorities of the patient encounter, and consequently, the order of tasks necessary to manage the patient successfully. In the EM Model, patient acuity includes critical, emergent, and lower acuity (Table 2).

### Physician Tasks

The physician tasks include the range of activities and the dynamic nature of the practice of Emergency Medicine (Table 3). Emergency physicians simultaneously consider multiple factors involved in patient care that may alter the direction of patient management. For example, the approach to the patient can change dramatically when considering a pediatric v. a geriatric presentation of the same complaint, i.e., modifying factors. The physician tasks apply to patients of all ages. Although there are no separate sections on the care of pediatric or geriatric patients, users of the document should consider including pediatric and geriatric aspects of patient care related to each task. When considered together, these tasks are directly related to the six broad competencies expected of board certified emergency physicians.

Following is a concise example of how patient acuity and physician tasks can be applied to patients presenting with the same complaint of chest pain:

1. A 55-year old hypertensive diabetic male with crushing chest pain, diaphoresis, and a blood

pressure of 60 systolic who is clutching his chest.

Acuity Frame: Critical

Implications: Immediate intervention is necessary to manage and stabilize vital functions. High probability of mortality exists without immediate intervention.

2. A 74-year old female with a history of angina presenting with three-to-five minutes of dull chest pain typical of her angina. She has stable vital signs and her pain is relieved by nitroglycerin.

Acuity Frame: Emergent

Implications: Initiation of monitoring, vascular access, evaluation, and treatment must be performed quickly. Progression in severity, complications, or morbidity may occur without immediate treatment.

3. A 12-year old female with non-traumatic sharp chest pain lasting for several days that intensifies with movement of the torso.

Acuity Frame: Lower acuity

Implications: Patient's symptoms should be addressed promptly. However, progression to major complications would be unlikely.

**Table 1.**  
 Matrix of physician tasks by patient acuity

Physician Tasks	Patient Acuity		
	Critical	Emergent	Lower Acuity
Pre-hospital care Emergency stabilization Performance of focused history and physical examination Modifying factors Professional issues Diagnostic studies Diagnosis Therapeutic interventions Pharmacotherapy Observation and reassessment Consultation and disposition Prevention and education Documentation Multi-tasking & team management			

**Table 2.**  
 Patient acuity definitions

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 3.**  
Physician task definitions

Pre-hospital care	Participate actively in pre-hospital care; provide direct patient care or on-line or off-line medical direction or interact with pre-hospital medical providers; assimilate information from pre-hospital care into the assessment and management of the patient.
Emergency stabilization	Conduct primary assessment and take appropriate steps to stabilize and treat patients.
Performance of focused history and physical examination	Communicate effectively to interpret and evaluate the patient's symptoms and history; identify pertinent risk factors in the patient's history; provide a focused evaluation; interpret the patient's appearance, vital signs and condition; recognize pertinent physical findings; perform techniques required for conducting the exam.
Modifying factors	Recognize age, gender, ethnicity, barriers to communication, socioeconomic status, underlying disease, and other factors that may affect patient management.
Professional and legal issues	Understand and apply principles of professionalism, ethics, and legal concepts pertinent to patient management.
Diagnostic studies	Select and perform the most appropriate diagnostic studies and interpret the results, e.g., electrocardiogram, emergency ultrasound, and laboratory tests.
Diagnosis	Develop a differential diagnosis and establish the most likely diagnoses in light of the history, physical, interventions, and test results.
Therapeutic interventions	Perform procedures and nonpharmacologic therapies, and counsel.
Pharmacotherapy	Select appropriate pharmacotherapy, recognize pharmacokinetic properties, and anticipate drug interactions and adverse effects.
Observation and reassessment	Evaluate and re-evaluate the effectiveness of a patient's treatment or therapy, including addressing complications and potential errors; monitor, observe, manage, and maintain the stability of one or more patients who are at different stages in their work-ups.
Consultation and disposition	Collaborate with physicians and other professionals to evaluate and treat patients, arrange appropriate placement and transfer if necessary, formulate a follow-up plan, and communicate effectively with patients, family, and involved health care members.
Prevention and education	Apply epidemiologic information to patients at risk; conduct patient education; select appropriate disease and injury prevention techniques.
Documentation	Communicate patient care information in a concise manner that facilitates quality care and coding.
Multi-tasking and team management	Prioritize multiple patients in the emergency department in order to provide optimal patient care; interact, coordinate, educate, and supervise all members of the patient management team; utilize appropriate hospital resources; have familiarity with disaster management.



## LISTING OF CONDITIONS AND COMPONENTS

The Listing of Conditions and Components contains the fundamental, or core, patient conditions that present to emergency departments. The listing is based on data collected by the National Center for Health Statistics at the Centers for Disease Control and Prevention (CDC) during 1995-1996. The CDC data were collected from 40,000 emergency department records statistically representative of 90.3 million emergency department visits in metropolitan and non-metropolitan short-stay or general hospitals in all 50 states and the District of Columbia. Frequency of occurrence was a primary factor in determining inclusion in the Listing of Conditions and Components. Frequency of occurrence, however, was not the sole determinant of inclusion, nor was the number of entries pertaining to a single topic representative of importance. The final list was developed by several expert panels of practicing emergency physicians based on three factors: 1) frequency of occurrence; 2) critical nature of patient presentation; and 3) **other components of EM practice.**

**Appendix 1** outlines the diagnostic and/or therapeutic procedures or tests that are essential to the clinical practice of Emergency Medicine. Emergency physicians must know the indications for ordering, be able to perform, and be able to interpret the results of the listed items.

**Appendix 2** lists the other essential components of Emergency Medicine practice. These include such items as administration; communication and interpersonal issues; research; and risk management, legal, and regulatory issues. Emergency physicians should have a basic knowledge of these components and be able to apply them to their clinical practice.

**NOTE:** The Listing of Conditions and Components is not intended to be comprehensive. It is intended to be representative of the most frequent conditions seen and those with the most serious implications for patients presenting to the emergency department.

## Listing of Conditions and Components

	Critical	Emergent	Lower Acuity
<b>1.0 SIGNS, SYMPTOMS, AND PRESENTATIONS</b>			
<b>1.1 General</b>			
Altered mental status	X	X	
Anxiety			X
Apnea	X		
Ataxia		X	X
Back pain	X	X	X
Bleeding	X	X	X
Coma	X		
Confusion		X	
Crying/Fussiness		X	X
Cyanosis	X		
Decreased level of consciousness	X	X	
Dehydration	X	X	
Dizziness		X	X
Edema		X	X
Failure to thrive		X	X
Fatigue		X	X
Feeding problems			X
Fever	X	X	X
Hypotension	X	X	
Jaundice		X	
Joint pain/Swelling		X	X
Limp		X	X
Lymphadenopathy			X
Malaise		X	X
Multiple trauma	X	X	
Needle stick		X	X
Pain	X	X	X
Paralysis	X	X	
Paresthesia/Dysesthesia		X	X
Poisoning	X	X	X
Pruritus		X	X
Rash	X	X	X
Shock	X		
SIDS (See 3.1)	X		
Sleeping problems			X
Syncope	X	X	X
Tremor		X	X
Weakness		X	X
Weight loss		X	X
<b>1.2 Abdominal</b>			
Abnormal vaginal bleeding	X	X	X
Anuria		X	
Ascites		X	X
Colic		X	X
Constipation			X

	Critical	Emergent	Lower Acuity
Cramps		X	X
Diarrhea		X	X
Dysmenorrhea			X
Dysuria			X
Hematemesis	X	X	
Hematochezia	X	X	X
Hematuria		X	X
Nausea/Vomiting		X	X
Pain	X	X	X
Pelvic pain	X	X	X
Peritonitis	X	X	
Rectal bleeding	X	X	X
Rectal pain		X	X
Urinary incontinence			X
Urinary retention		X	
<b>1.3 Chest</b>			
Chest pain	X	X	X
Cough		X	X
Dyspnea	X	X	
Hemoptysis	X	X	
Hiccough			X
Palpitations	X	X	X
Shortness of breath	X	X	
Tachycardia	X	X	
Wheezing	X	X	
<b>1.4 Head and Neck</b>			
Congestion			X
Diplopia		X	
Dysphagia		X	X
Eye pain		X	X
Headache (See 12.3)	X	X	X
Loss of hearing			X
Loss of vision		X	
Rhinorrhea			X
Sore throat		X	X
Stridor	X	X	
Tinnitus			X
Vertigo		X	X

	Critical	Emergent	Lower Acuity
<b>2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS</b>			
<b>2.1 Abdominal Wall</b>			
Hernias		X	X
<b>2.2 Esophagus</b>			
Infectious disorders			
Candida (See 4.4, 7.5)		X	X
Inflammatory disorders			
Esophagitis		X	X
Gastroesophageal reflux (GERD)			X
Toxic effects of caustic (See 17.1)			
Acid	X	X	
Alkali	X	X	
Motor abnormalities			
Spasms			X
Structural disorders			
Boerhaave's syndrome	X	X	
Diverticula		X	X
Foreign body		X	
Hernias		X	X
Mallory-Weiss syndrome	X	X	
Stricture and stenosis		X	X
Tracheoesophageal fistula	X	X	
Varices	X	X	
Tumors		X	X
<b>2.3 Liver</b>			
Cirrhosis		X	X
Alcoholic		X	X
Biliary obstructive		X	
Drug-induced		X	X
Hepato-renal failure	X	X	
Infectious disorders		X	X
Abscess		X	
Hepatitis			
Acute		X	X
Chronic			X
Tumors		X	X
<b>2.4 Gall Bladder and Biliary Tract</b>			
Cholangitis	X	X	
Cholecystitis		X	
Cholelithiasis/Choledocholithiasis		X	X
Tumors		X	X
<b>2.5 Pancreas</b>			
Pancreatitis	X	X	
Tumors		X	X

	Critical	Emergent	Lower Acuity
<b>2.6 Peritoneum</b>			
Spontaneous bacterial peritonitis	X	X	
<b>2.7 Stomach</b>			
Infectious disorders			X
Inflammatory disorders			
Gastritis		X	X
Peptic ulcer disease		X	X
Hemorrhage	X	X	
Perforation	X	X	
Structural disorders			
Congenital hypertrophic pyloric stenosis		X	
Foreign body		X	X
Tumors		X	X
<b>2.8 Small Bowel</b>			
Infectious disorders		X	X
Inflammatory disorders			
Regional enteritis/Crohn's disease		X	X
Motor abnormalities			
Obstruction		X	
Paralytic ileus		X	
Structural disorders			
Aortoenteric fistula	X		
Congenital anomalies		X	X
Intestinal malabsorption		X	X
Meckel's diverticulum		X	X
Tumors		X	X
Vascular insufficiency	X	X	
<b>2.9 Large Bowel</b>			
Infectious disorders			
Antibiotic associated		X	
Bacterial		X	X
Parasitic		X	X
Viral		X	X
Inflammatory disorders			
Acute appendicitis		X	
Necrotizing enterocolitis (NEC)	X	X	
Radiation colitis		X	
Ulcerative colitis		X	X
Motor abnormalities			
Hirschsprung's disease		X	X
Irritable bowel			X
Obstruction		X	
Structural disorders			
Congenital anomalies		X	X
Diverticula		X	X
Intussusception	X	X	
Volvulus	X	X	

	Critical	Emergent	Lower Acuity
Tumors		X	X
<b>2.10 Rectum and Anus</b>			
Infectious disorders			
Perianal/Anal abscess		X	X
Perirectal abscess		X	
Pilonidal cyst and abscess		X	X
Inflammatory disorders			
Proctitis			X
Structural disorders			
Anal fissure			X
Anal fistula		X	X
Congenital anomalies			X
Foreign body		X	X
Hemorrhoids			X
Rectal prolapse		X	
Tumors		X	X
<b>2.11 Spleen</b>	X	X	X

	Critical	Emergent	Lower Acuity
<b>3.0 CARDIOVASCULAR DISORDERS</b>			
<b>3.1 Cardiopulmonary Arrest</b>	X		
SIDS (See 1.1)	X		
<b>3.2 Congenital Abnormalities of the Cardiovascular System</b>			
Disorders due to anatomic anomalies	X	X	X
Genetically transmitted disorders	X	X	X
<b>3.3 Disorders of Circulation</b>			
Arterial			
Aneurysm	X	X	X
Aortic dissection	X		
Thromboembolism	X	X	
Venous			
Thromboembolism (See 16.6)	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	
Coronary syndromes	X	X	
Ischemic heart disease	X	X	
Myocardial infarction	X	X	
Myocarditis	X	X	X
Ventricular aneurysm	X	X	X
<b>3.6 Diseases of the Pericardium</b>			
Pericardial tamponade (See 18.1)	X	X	
Pericarditis		X	X
<b>3.7 Endocarditis</b>	X	X	
<b>3.8 Hypertension</b>	X	X	X
<b>3.9 Tumors</b>	X	X	
<b>3.10 Valvular Disorders</b>	X	X	X

	Critical	Emergent	Lower Acuity
<b>4.0 CUTANEOUS DISORDERS</b>			
<b>4.1 Cancers of the Skin</b>			
Basal cell			X
Kaposi's sarcoma			X
Melanoma			X
Squamous cell			X
<b>4.2 Decubitus Ulcer</b>		X	X
<b>4.3 Dermatitis</b>			
Atopic			X
Contact			X
Eczema			X
Psoriasis			X
Sebaceous cyst			X
Seborrhea			X
<b>4.4 Infections</b>			
Bacterial			
Abscess		X	X
Cellulitis		X	X
Erysipelas		X	
Impetigo			X
Necrotizing infection	X	X	
Fungal			
Candida (See 2.2, 7.5)			X
Tinea			X
Parasitic			
Pediculosis infestation			X
Scabies			X
Viral			
Aphthous ulcers			X
Erythema infectiosum			X
Herpes simplex (See 10.6, 13.1)			X
Herpes zoster (See 10.6)		X	X
Human papillomavirus (HPV) (See 13.1)			X
Molluscum contagiosum			X
Warts			X
<b>4.5 Maculopapular Lesions</b>			
Erythema multiforme		X	X
Erythema nodosum			X
Henoch-Schönlein purpura (HSP)		X	
Pityriasis rosea			X
Purpura		X	X
Urticaria		X	X



	Critical	Emergent	Lower Acuity
<b>4.6 Papular/Nodular Lesions</b>			
Hemangioma/Lymphangioma			X
Lipoma			X
<b>4.7 Vesicular/Bullous Lesions</b>			
Pemphigus		X	
Staphylococcal scalded skin syndrome	X	X	
Stevens-Johnson syndrome	X	X	
Toxic epidermal necrolysis	X	X	

	Critical	Emergent	Lower Acuity
<b>5.0 ENDOCRINE, METABOLIC, AND NUTRITIONAL DISORDERS</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>			
Corticotrophic insufficiency	X	X	
Cushing's syndrome		X	X
<b>5.3 Fluid and Electrolyte Disturbances</b>			
Calcium metabolism	X	X	X
Fluid overload/Volume depletion	X	X	
Hyperkalemia/Hypokalemia	X	X	X
Hypernatremia/Hyponatremia	X	X	X
Magnesium metabolism		X	X
Phosphorus metabolism		X	X
<b>5.4 Glucose Metabolism</b>			
Diabetes mellitus			
Type I	X	X	X
Type II		X	X
Complications in glucose metabolism			
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
Vitamin excess			X
Wernicke-Korsakoff syndrome		X	
<b>5.6 Parathyroid Disease</b>		X	X
<b>5.7 Pituitary Disorders</b>		X	X
Panhypopituitarism		X	
<b>5.8 Thyroid Disorders</b>			
Hyperthyroidism	X	X	X
Hypothyroidism	X	X	X
Thyroiditis		X	X
<b>5.9 Tumors of Endocrine Glands</b>			
Adrenal		X	X
Pituitary		X	X
Thyroid		X	X

	Critical	Emergent	Lower Acuity
<b>6.0 ENVIRONMENTAL DISORDERS</b>			
<b>6.1 Bites and Envenomation (See 18.1)</b>			
Arthropods		X	X
Insects			X
Spiders		X	X
Mammals		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		
Cold			
Frostbite		X	X
Hypothermia	X	X	
<b>6.7 Radiation Emergencies</b>	X	X	X

	Critical	Emergent	Lower Acuity
<b>7.0 HEAD, EAR, EYE, NOSE, THROAT DISORDERS</b>			
<b>7.1 Ear</b>			
Foreign body		X	X
Impacted cerumen			X
Labyrinthitis			X
Mastoiditis		X	
Meniere's disease			X
Otitis externa			X
Infective			X
Malignant		X	
Otitis media		X	X
Perforated tympanic membrane (See 18.1)			X
<b>7.2 Eye</b>			
External eye			
Blepharitis			X
Burn confined to eye and adnexa (See 18.1)		X	
Conjunctivitis			X
Corneal abrasions (See 18.1)		X	X
Dacryocystitis		X	X
Disorders of lacrimal system			X
Foreign body		X	X
Inflammation of the eyelids			X
Chalazion			X
Hordeolum			X
Anterior pole			
Glaucoma		X	X
Hyphema (See 18.1)		X	X
Iritis (See 18.1)		X	X
Posterior pole			
Choroiditis/Chorioretinitis		X	
Optic neuritis		X	
Papilledema	X	X	
Retinal detachments and defects (See 18.1)		X	
Retinal vascular occlusion		X	
Orbit			
Cellulitis			
Preseptal		X	
Postseptal		X	
Purulent endophthalmitis		X	
<b>7.3 Cavernous Sinus Thrombosis</b>	X	X	
<b>7.4 Nose</b>			
Epistaxis	X	X	X
Foreign body		X	X
Rhinitis			X
Sinusitis			X

	Critical	Emergent	Lower Acuity
<b>7.5 Oropharynx/Throat</b>			
Dentalgia			X
Diseases of the oral soft tissue			
Ludwig's angina	X	X	
Stomatitis			X
Diseases of the salivary glands			
Sialolithiasis		X	X
Suppurative parotitis		X	
Foreign body	X	X	
Gingival and periodontal disorders			
Gingivostomatitis			X
Larynx/Trachea			
Epiglottitis (See 16.1)	X	X	
Laryngitis			X
Tracheitis		X	X
Oral candidiasis (See 2.2, 4.4)			X
Periapical abscess		X	X
Peritonsillar abscess		X	
Pharyngitis/Tonsillitis			X
Retropharyngeal abscess	X	X	
Temporomandibular joint disorders			X
<b>7.6 Tumors</b>		X	X

	Critical	Emergent	Lower Acuity
<b>8.0 HEMATOLOGIC DISORDERS</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 Pancytopenia</b>	X	X	
<b>8.5 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 (See 17.1)	X	X	
<b>8.6 White Blood Cell Disorders</b>			
Leukemia		X	X
Multiple myeloma		X	X
Leukopenia		X	X

	Critical	Emergent	Lower Acuity
<b>9.0 IMMUNE SYSTEM DISORDERS</b>			
<b>9.1 Collagen Vascular Disease</b>			
Raynaud's disease			X
Reiter's syndrome		X	X
Rheumatoid arthritis (See 11.3)		X	X
Scleroderma		X	X
Systemic lupus erythematosus		X	X
Vasculitis		X	X
<b>9.2 HIV and Manifestations (See 10.6)</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 Kawasaki Syndrome</b>		X	
<b>9.5 Sarcoidosis</b>		X	X
<b>9.6 Transplant-related Problems</b>	X	X	X
Immunosuppression		X	X
Rejection	X	X	
<b>9.7 Rheumatic Fever</b>		X	X

	Critical	Emergent	Lower Acuity
<b>10.0 SYSTEMIC INFECTIOUS DISORDERS</b>			
<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			
Atypical mycobacteria		X	X
Tuberculosis		X	X
Other bacterial diseases	X	X	
Gas gangrene (See 11.6)	X	X	
Sepsis/Bacteremia	X	X	
Shock	X		
Systemic inflammatory response syndrome (SIRS)	X	X	
Toxic shock syndrome	X	X	
Spirochetes			
Syphilis		X	X
Tetanus	X	X	
<b>10.2 Biologic Weapons</b>	X	X	
<b>10.3 Fungal Infections</b>		X	X
<b>10.4 Protozoan/Parasites</b>			
Malaria		X	
Toxoplasmosis		X	X
<b>10.5 Tick-borne</b>			
Ehrlichiosis		X	
Lyme disease		X	
Rocky Mountain spotted fever		X	
<b>10.6 Viral</b>		X	X
Infectious mononucleosis		X	X
Influenza/Parainfluenza		X	X
Hantavirus	X	X	
Herpes simplex (See 4.4, 13.1)		X	X
Herpes zoster/Varicella (See 4.4)		X	X
HIV (See 9.2)	X	X	X
Rabies	X		
Roseola			X
Rubella			X
<b>10.7 Emerging Infections</b>	<b>X</b>	<b>X</b>	



	Critical	Emergent	Lower Acuity
<b>11.0 MUSCULOSKELETAL DISORDERS (NONTRAUMATIC)</b>			
<b>11.1 Bony Abnormalities</b>			
Aseptic necrosis of hip		X	X
Osteomyelitis		X	
Tumors		X	X
<b>11.2 Disorders of the Spine</b>			
Disc disorders		X	X
Inflammatory spondylopathies		X	X
Low back pain			
Cauda equina syndrome (See 18.1)		X	
Sacroiliitis			X
Sprains/Strains			X
<b>11.3 Joint Abnormalities</b>			
Arthritis			
Septic		X	
Gout		X	X
Rheumatoid (See 9.1)			X
Juvenile			X
Osteoarthritis			X
Congenital dislocation of the hip		X	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	
Felon		X	
Gangrene (See 10.1)	X	X	
Paronychia		X	X
Synovitis/Tenosynovitis		X	X

	Critical	Emergent	Lower Acuity
<b>12.0 NERVOUS SYSTEM DISORDERS</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	X
<b>12.3 Headache (See 1.4)</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	
Intracranial and intraspinal abscess	X	X	
Meningitis			
Bacterial	X	X	
Viral		X	X
Myelitis		X	
Neuralgia/Neuritis			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	X
Peripheral neuropathy		X	
<b>12.8 Other Conditions of the Brain</b>			
Dementia (See 14.5)			X
Parkinson's disease			X
Pseudotumor cerebri		X	X
<b>12.9 Seizure Disorders</b>	X	X	X
Febrile		X	X
Neonatal		X	
Status epilepticus	X		
<b>12.10 Spinal Cord Compression</b>	X	X	
<b>12.11 Stroke</b>			
Hemorrhagic			
Intracerebral	X	X	
Subarachnoid	X	X	

	Critical	Emergent	Lower Acuity
Ischemic			
Embolic	X	X	
Thrombotic	X	X	
12.12 <b>Transient Cerebral Ischemia</b>		X	X
12.13 <b>Tumors</b>		X	X

	Critical	Emergent	Lower Acuity
<b>13.0 OBSTETRICS AND GYNECOLOGY</b>			
<b>13.1 Female Genital Tract</b>			
Cervix			
Cervicitis and endocervicitis		X	X
Tumors			X
Infectious disorders			
Pelvic inflammatory disease		X	
Fitz-Hugh-Curtis syndrome		X	
Tubo-ovarian abscess		X	
Lesions			
Herpes simplex (See 4.4, 10.6)			X
Human papillomavirus (HPV) (See 4.4)			X
Ovary			
Cyst			X
Torsion		X	
Tumors		X	X
Uterus			
Dysfunctional bleeding		X	X
Endometriosis			X
Prolapse			X
Tumors		X	X
Gestational trophoblastic disease		X	
Leiomyoma			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	
Hemolysis, elevated liver enzymes, low platelets (HELLP) syndrome	X	X	
Hemorrhage, antepartum			
Abruptio placentae (See 18.2)	X	X	
Placenta previa	X	X	
Hyperemesis gravidarum		X	X
Hypertension complicating pregnancy		X	X
Eclampsia	X	X	
Preeclampsia		X	
Infections		X	
Rh isoimmunization		X	
<b>13.4 High-risk Pregnancy</b>	X	X	
<b>13.5 Normal Labor and Delivery</b>		X	X

	Critical	Emergent	Lower Acuity
<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	
Mastitis		X	X

	Critical	Emergent	Lower Acuity
<b>14.0 PSYCHOBEHAVIORAL DISORDERS</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 syndrome/Munchausen 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 (See 12.8)			X
Intoxication and/or withdrawal (See 17.1)			
Alcohol	X	X	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	
Staff/Patient safety		X	
<b>14.7 Personality Disorders</b>			X

**14.8 Psychosomatic Disorders**

Hypochondriasis

Hysteria/Conversion

Critical	Emergent	Lower Acuity
		X
		X

	Critical	Emergent	Lower Acuity
<b>15.0 RENAL AND UROGENITAL DISORDERS</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 Glomerular Disorders</b>			
Glomerulonephritis		X	X
Nephrotic syndrome		X	X
<b>15.4 Infection</b>			
Cystitis			X
Pyelonephritis		X	
Urinary tract infection (UTI)			X
<b>15.5 Male Genital Tract</b>			
Genital lesions			X
Hernias		X	X
Inflammation/Infection			
Balanitis/Balanoposthitis		X	X
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
Tumors			
Prostate			X
Testis			X
<b>15.6 Nephritis</b>		X	X
Hemolytic uremic syndrome		X	
<b>15.7 Structural Disorders</b>			
Calculus of urinary tract		X	X
Obstructive uropathy		X	
Polycystic kidney disease			X
<b>15.8 Tumors</b>			X



	Critical	Emergent	Lower Acuity
<b>16.0 THORACIC-RESPIRATORY DISORDERS</b>			
<b>16.1 Acute Upper Airway Disorders</b>			
Infections			
Croup		X	
Epiglottitis (See 7.5)	X	X	
Pertussis/Whooping cough	X	X	
Upper respiratory infection			X
Obstruction	X		
Tracheostomy/Complications	X	X	
<b>16.2 Disorders of Pleura, Mediastinum, and Chest Wall</b>			
Costochondritis			X
Mediastinitis	X	X	
Pleural effusion		X	X
Pleuritis			X
Pneumomediastinum		X	
Pneumothorax (See 18.1)			
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	
Bronchitis and bronchiolitis		X	X
Bronchopulmonary dysplasia		X	X
Chronic obstructive pulmonary disease	X	X	X
Cystic fibrosis	X	X	X
Environmental/Industrial exposure	X	X	X
Foreign body	X	X	
<b>16.5 Physical and Chemical Irritants/Insults</b>			
Pneumoconiosis		X	X
Toxic effects of gases, fumes, vapors (See 18.1)	X	X	X
<b>16.6 Pulmonary Embolism/Infarct</b>			
Septic emboli	X	X	
Venous thromboembolism (See 3.3)	X	X	
<b>16.7 Pulmonary Infections</b>			
Lung abscess		X	
Pneumonia			
Aspiration	X	X	
Atypical		X	
Bacterial	X	X	
Chlamydia		X	
Fungal	X	X	
Mycoplasmal		X	X

	Critical	Emergent	Lower Acuity
Viral	X	X	X
Pulmonary tuberculosis		X	

**16.8 Tumors**

Breast			X
Chest wall			X
Pulmonary		X	X

	Critical	Emergent	Lower Acuity
<b>17.0 TOXICOLOGIC DISORDERS</b>			
<b>17.1 Drug and Chemical Classes</b>			
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	
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	
Bronchodilators		X	
Carbon monoxide	X	X	
Cardiovascular drugs			
Antiarrhythmics	X	X	
Digitalis	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 (See 6.1)	X	X	X
Methemoglobinemia (See 8.5)	X	X	
Mushrooms/Poisonous plants	X	X	
Neuroleptics	X	X	

	Critical	Emergent	Lower Acuity
Non-prescription drugs		X	X
Organophosphates	X	X	
Recreational drugs	X	X	X
Sedatives/Hypnotics	X	X	
Stimulants/Sympathomimetics	X	X	
Strychnine	X	X	
Lithium	X	X	X

	Critical	Emergent	Lower Acuity
<b>18.0 TRAUMATIC DISORDERS</b>			
<b>18.1 Trauma</b>			
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 (See 3.6)	X		
Pneumothorax (See 16.2)			
Simple		X	
Tension	X		
Cutaneous injuries			
Avulsions		X	X
Bite wounds (See 6.1)		X	X
Burns			
Electrical (See 6.3)	X	X	X
Chemical (See 16.5)	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	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	

	Critical	Emergent	Lower Acuity
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 (See 7.2)		X	X
Corneal burns			
Acid		X	
Alkali		X	
Ultraviolet		X	X
Eyelid lacerations		X	
Foreign body		X	
Hyphema (See 7.2)		X	
Lacrimal duct injuries		X	
Penetrating globe injuries		X	
Retinal detachments (See 7.2)		X	
Traumatic iritis (See 7.2)		X	X
Otologic trauma			
Hematoma		X	X
Perforated tympanic membrane (See 7.1)			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	
Vascular injuries	X	X	
Spinal cord and nervous system trauma			
Cauda equina syndrome (See 11.2)		X	

	Critical	Emergent	Lower Acuity
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
<b>18.2 Trauma in Pregnancy</b>			
Abruptio placentae (See 13.3)	X	X	
Perimortem C-section	X		
Premature labor (See 13.6)		X	
Rupture of uterus (See 13.6)	X		
<b>18.3 Multi-system Trauma</b>			
Blast injury	X	X	

**APPENDIX 1.**  
**Procedures and Skills Integral to the Practice of Emergency Medicine**

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**Airway Techniques**

Airway adjuncts  
Cricothyrotomy  
Heimlich maneuver  
Intubation  
    1. Nasotracheal  
    2. Orotracheal  
    3. Rapid sequence  
Mechanical ventilation  
Percutaneous transtracheal ventilation

**Anesthesia**

Local  
Regional nerve block  
Sedation - analgesia for procedures

**Blood, Fluid, and Component Therapy  
Administration**

**Diagnostic Procedures**

Anoscopy  
Arthrocentesis  
Bedside ultrasonography  
Cystourethrogram  
Lumbar puncture  
Nasogastric tube  
Paracentesis  
Pericardiocentesis  
Peritoneal lavage  
Slit lamp examination  
Thoracentesis  
Tonometry

**Genital/Urinary**

Bladder catheterization  
    1. Foley catheter  
    2. Suprapubic  
Testicular detorsion

**Head and Neck**

Control of epistaxis  
    1. Anterior packing  
    2. Cautery  
    3. Posterior packing/Balloon placement  
Laryngoscopy  
Needle aspiration of peritonsillar abscess  
Removal of rust ring  
Tooth replacement

**Hemodynamic Techniques**

Arterial catheter insertion  
Central venous access  
    1. Femoral  
    2. Jugular  
    3. Subclavian  
    4. Umbilical  
    5. Venous cutdown  
Intraosseous infusion  
Peripheral venous cutdown

**Obstetrics**

Delivery of newborn  
    1. Abnormal delivery  
    2. Normal delivery

**Other Techniques**

Excision of thrombosed hemorrhoids  
Foreign body removal  
Gastric lavage  
Gastrostomy tube replacement  
Incision/Drainage  
Pain management (See Anesthesia)  
Physical restraints  
Sexual assault examination  
Trephination, nails  
Wound closure techniques  
Wound management



**Resuscitation**

Cardiopulmonary resuscitation (CPR)

Neonatal resuscitation

**Skeletal Procedures**

Fracture/Dislocation immobilization  
techniques

Fracture/Dislocation reduction techniques

Spine immobilization techniques

**Thoracic**

Cardiac pacing

1. Cutaneous

2. Transvenous

Defibrillation/Cardioversion

Thoracostomy

Thoracotomy

**Universal Precautions**

APPENDIX 2.  
Other Components of the Practice of Emergency Medicine

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**ADMINISTRATION**

**Contract Principles**

Analysis of Clauses and Components  
Employment v. Independent Contractor  
Negotiation

**Financial Issues**

Budget and Planning  
Cost Containment  
Reimbursement Issues, Billing, and Coding

**Operations**

Department Administration  
Documentation  
Facility Design  
Human Resource Management  
Information Management  
Patient Throughput **and Crowding**  
Policies and Procedures  
Safety and Security

**Performance Improvement**

Customer Satisfaction and Service  
**Patient Safety and** Error Reduction  
Practice Guidelines

**Pre-hospital Care**

Administration, Management, and Operations  
Credentialing of Providers  
Direct Patient Care  
Multi-casualty Incidents  
Performance Improvement  
Protocol Development

**Professionalism**

Death in ED  
Ethics  
Impairment  
Leadership (Leading, Directing and Mentoring)  
Personal Well-being  
Professional Development and Lifelong Learning

**Systems-based Management**

Managed Care

**Emergency Preparedness and Disaster Management**  
**End-of-Life Issues**

**COMMUNICATION AND INTERPERSONAL ISSUES**

Complaint Management  
Conflict Resolution  
Interdepartmental and Medical Staff Relations  
Team Building  
Teaching

**RESEARCH**

Evidence-based Medicine  
Interpretation of Medical Literature  
Performance of Research

**RISK MANAGEMENT, LEGAL, AND REGULATORY ISSUES**

Accreditation  
Compliance  
Confidentiality  
Consent and Refusal of Care  
Emergency Medical Treatment and Active Labor Act (EMTALA)  
Liability and Malpractice  
Reporting (Assault, Communicable Diseases, National Practitioner Data Bank, etc.)  
Risk Management

<sup>1</sup> **Accreditation Council for Graduate Medical Education (ACGME). ACGME Core Competencies. (ACGME Outcome Project Website). Available at <http://www.acgme.org/outcome/comp/compfull.asp>**

<sup>2</sup> **Chapman DM, Hayden S, Sanders AB, et al. Integrating the Accreditation Council for Graduate Medical Education core competencies into The Model of the Clinical Practice of Emergency Medicine. *Ann Emerg Med.* 2004;43:756-769, and *Acad Emerg Med.* 2004;11:674-685.**

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