2013 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 2013 EM Model Review Task Force conducted the fifth review of the EM Model. Their work is built on the original 2001 EM Model and the subsequent four revisions. The 2013 EM Model is published in May 2014 *Academic Emergency Medicine* online only.

All changes that resulted from the 2013 EM Model Review Task Force are summarized in Figure 1.

Preamble of the Core Content Task Force II, Adapted for the 2013 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.

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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 six collaborating organizations reviewed the 2002-2003 EM Model in 2005 and developed a small list of proposed changes to the document. The changes were reviewed and considered by nine representatives from the organizations, i.e., the 2005 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 October 2006 *Academic Emergency Medicine* and December 2006 *Annals of Emergency Medicine*.

The next regular review of the EM Model occurred in 2007. The 2007 EM Model Review Task Force recommendations were approved by the collaborating organizations and were incorporated into the EM Model. The work of the Task Force was published in the August 2008 *Academic Emergency Medicine* and online-only in the August 2008 *Annals of Emergency Medicine*.

The fourth review of the EM Model occurred in 2009. The 2009 EM Model Review Task Force recommendations were approved by the collaborating organizations and were incorporated into the EM Model. The work of the Task Force was published in the January 2011 *Academic Emergency Medicine* and online-only in *Annals of Emergency Medicine*.

The fifth review of the EM Model occurred in 2011. The 2011 EM Model Review Task Force recommendations were approved by the collaborating organizations and were incorporated into the EM Model. The work of the Task Force was published online-only in the July 2012 *Academic Emergency Medicine*.

The sixth review of the EM Model occurred in 2013, and a seventh collaborating organization, the American Academy of Emergency Medicine was added. The 2013 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 medical knowledge, patient care, and procedural skills. Together these three components describe the clinical practice of Emergency Medicine (EM) and differentiate it from the clinical practice of other specialties. The EM Model represents essential information and skills necessary for the clinical practice of EM 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 EM, 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 six general (core) competencies thought to be essential for any practicing physician: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.[1] The six general competencies are an integral part of the practice of Emergency Medicine and are embedded into the EM Model. To incorporate these competencies into the specialty of EM, an Emergency Medicine Competency Task Force demonstrated how these competencies are integrated into the EM Model.[2] The 2013 revisions provide further alignment between the EM Model and the ACGME six core competencies.

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 six core 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.

[1] Accreditation Council for Graduate Medical Education (ACGME). ACGME Core Competencies. (ACGME Outcome Project Website). Available at http://www.acgme.org/outcome/comp/compCPRL.asp

[2] 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.

Figure 1

Summary of 2013 EM Model Review Task Force Changes

Listed below are the changes approved by the seven collaborating organizations.

Changes to Table 1. Matrix of physician tasks by patient acuity

The physician task of Professional and legal issues was separated into two separate physician tasks.

The physician task of Mass casualty/Disaster management was added.

Changes to Table 3. Physician task definitions

- The physician task of Professional and legal issues was separated into the following two physician tasks:

  Professional issues: Understand and apply principles of professionalism and ethics pertinent to patient management.

  Legal issues: Understand and apply legal concepts pertinent to the practice of EM.

- Added *"and appropriate"* to the physician task of Documentation, to read as follows:

  Documentation: Communicate patient care information in a concise and appropriate manner that facilitates quality care and coding.

- Deleted *"have familiarity with disaster management"* from the physician task of Team management, to read as follows:

  Team Management: Coordinate, educate, or supervise members of the patient management team and utilize appropriate hospital resources.

- Added the following new physician task:

  Mass casualty/Disaster management: Understand and apply the principles of disaster and mass casualty management including preparedness, triage, mitigation, response, and recovery.

Changes to Table 4. Medical Knowledge, Patient Care, and Procedural Skills

Location	Description of Change
1.0	This category underwent revision and extensive reordering. The changes are too numerous to document using this format.
2.2.1.2	Added Viral esophagitis (Emergent, Lower)
2.11	Deleted acuities (Critical, Emergent, Lower) from this line
2.11.1	Added Asplenism (Emergent, Lower)
2.11.2	Added Splenomegaly (Lower)
2.11.3	Added Vascular insufficiency/Infarction (Critical, Emergent, Lower)
3.1.1	Changed SIDS (See 1.1.34) to Sudden unexpected infant death (SUID)
3.1.2	Added Pulseless electrical activity (Critical)
4.2	Changed Decubitus Ulcer to Ulcerative Lesions
4.2.1	Added Decubitus (Emergent, Lower)
4.2.2	Added Venous stasis (Lower)
4.4.2.2	Changed Tinea to Dermatophytes
4.4.3	Changed Parasitic to Ectoparasites (added Lower)
4.4.3.1	Deleted Pediculosis infestation
4.4.3.2	Deleted Scabies
4.4.4.2	Changed Erythema infectiosum to Childhood exanthems (See 10.6.8, 10.6.9)
4.4.4.7	Deleted Warts
5.4.1.3.3	Changed Hyperosmolar coma to Hyperosmolar hyperglycemic state
5.5.3	Added Malabsorption (Emergent, Lower)
5.9.1.1	Added Pheochromocytoma (Critical, Emergent)
6.1.1.2	Changed Spiders to Arachnida
6.1.4	Changed Snakes to Reptiles
7.1.8	Added Perichondritis (Emergent, Lower)
7.2.1.2	Changed Burn confined to eye and adnexa to Burn confined to eye
7.3	Changed Cavernous Sinus Thrombosis to Cerebral Venous Sinus Thrombosis
7.3.1	Added Cavernous sinus thrombosis (Critical, Emergent)
7.5.8	Changed Periapical abscess to Dental abscess

10.6.8	Added (See 4.4.4.2)
10.6.9	Added (See 4.4.4.2)
11.1.1	Changed Aseptic necrosis of hip to Aseptic/Avascular necrosis
11.4.1	Changed Myalgia/Myositis to Myositis
12.3.1	Changed Muscle contraction to Tension
12.3.3	Added Cluster (Emergent, Lower)
12.5.5	Changed Neuralgia/Neuritis to Neuritis
12.6.2	Added Chorea/Choreiform (Lower)
12.6.3	Added Tardive dyskinesia (Lower)
12.9.3.1	Added Nonconvulsive (Critical)
12.11	Changed Stroke (Cerebral Vascular Events) to Stroke
13.1.2.2	Added Urethritis (Lower)
13.1.6.1	Changed Bartholin's abscess to Bartholin's cyst (added Lower)
13.3.6	Changed Pregnancy induced hypertension to Gestational hypertension
13.3.10	Added Gestational diabetes (Emergent, Lower)
13.4.1	Added Assisted reproductive therapies (Critical, Emergent, Lower)
13.8.4	Added Pituitary infarction (Critical, Emergent)
13.9	Added Contraception (Emergent, Lower)
14.1.5	Added Tobacco dependence (Lower)
14.3.1	Changed Drug-seeking behavior to Drug-diversion behavior
14.5.4.4	Deleted Phencyclidine
14.5.4.6	Added Anticholinergic (See 17.1.4) (Critical, Emergent, Lower)
15.4.3	Deleted Urinary tract infection (UTI)
15.5.4.4	Changed Torsion of testis to Torsion
16.1.1.3	Deleted Pertussis
16.1.1.4	Deleted Upper respiratory infection
16.2.6.3	Added Open (Critical)
16.6.3	Added Fat emboli (Critical, Emergent)
16.7.4	Added Respiratory syncytial virus (RSV) (Critical, Emergent, Lower)

16.7.5	Added Pertussis (Critical, Emergent, Lower)
17.1.4	Added (See 14.5.4.7)
17.1.5	Changed Anticoagulants to Anticoagulants/Antithrombotics
17.1.41	Added Antibiotics (Emergent, Lower)
17.1.42	Added Antiretrovirals (Emergent, Lower)
18.1.2.7.3	Added Open (Critical)
18.1.4.5	Added Nasal (Lower)
18.1.4.5.1	Added Septal hematoma (Emergent)
18.1.4.6	Added Zygomatic arch (Lower)
18.1.5.5	Added Urethral (Emergent, Lower)
18.1.8	Changed Lower extremity bony trauma to Extremity bony trauma
18.1.9.4	Added Strangulation (Critical, Emergent, Lower)
18.1.10.4	Added (See 19.4.4.8)
18.1.12.1.1	Added Salter-Harris classification (Emergent, Lower)
18.1.14.4.1	Deleted Knee
18.1.14.4.2	Deleted Penetrating
18.1.14.5	Changed Penetrating soft tissue to Penetrating trauma
18.1.16	Deleted Upper extremity bony trauma
18.1.16.1	Deleted Dislocations/Subluxations
18.1.16.2	Deleted Fractures (open and closed)
18.2.2	Added (See 19.4.8.2)
19.3.1	Changed Local to Local anesthesia
19.4.4.8	Added Corneal foreign body removal (See 18.1.10.4)
19.4.4.9	Added Drainage of hematoma
19.4.6.6	Added Fasciotomy
19.4.8.2	Added (See 18.2.2)
19.5.2	Changed Forensic examination to Collection and handling of forensic material
20.2.4	Added Principles of quality improvement
20.4.1.1	Changed Computerized physician order entry to Computerized order entry

20.4.4.1	Changed End-of-life and palliative care to End-of-life and palliative care/Advance directives
20.4.4.2	Changed Long-term care to Placement options
20.4.7.1	Added Public policy

Changes to Category 1

Category 1 in this document reflects all changes to the 2011 Model resulting from the 2013 EM Model Task Force review. For comparison, the 2011 version of Category 1 may be found at Perina DG, Brunett CP, Caro DA, et al; for 2011 EM Model of the Clinical Practice of Emergency Medicine. The 2011 model of the clinical practice of emergency medicine. *Acad Emerg Med*. 2012;19(7):e19-40.

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) a listing of Medical Knowledge, Patient Care, and Procedural Skills.

The EM Model is a three-dimensional description of EM clinical practice. The three dimensions are patient acuity, physician tasks, and the listing of medical knowledge, patient care, and procedural skills. 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 medical knowledge, patient care, and procedural skills. 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 EM.

Physician Tasks

The physician tasks include the range of activities and the dynamic nature of the practice of EM (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 versus 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.

Patient Acuity

An emergency physician's frame of reference in a patient encounter is fundamentally related to the actual, apparent, or potential 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).

Matrix of Physician Tasks by Patient Acuity

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 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.

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

	Patient Acuity		
Physician Tasks	**Critical**	**Emergent**	**Lower Acuity**
Pre-hospital care Emergency stabilization Performance of focused history and physical examination Modifying factors Professional issues Legal issues Diagnostic studies Diagnosis Therapeutic interventions Pharmacotherapy Observation and reassessment Consultation Disposition Prevention and education Documentation Multiple patient care Team management Mass casualty/Disaster 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 issues	Understand and apply principles of professionalism and ethics pertinent to patient management.
Legal issues	Understand and apply legal concepts pertinent to the practice of EM.
Diagnostic studies	Select and perform the most appropriate diagnostic studies and interpret the results, e.g., electrocardiogram, emergency ultrasound, radiographic 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	Collaborate with physicians and other professionals to help guide optimal management of patients.
Disposition	Arrange for patient admission, discharge (including follow-up plan), observation, or transfer as appropriate, and communicate these arrangements effectively with patients, family, and involved healthcare team 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 and appropriate manner that facilitates quality care and coding.
Multiple patient care	Prioritize and implement the evaluation and management of multiple patients in the emergency department, including handling interruptions and task-switching, in order to provide optimal patient care.
Team management	Coordinate, educate, or supervise members of the patient management team and utilize appropriate hospital resources.
Mass casualty/disaster management	Understand and apply the principles of disaster and mass casualty management including preparedness, triage, mitigation, response, and recovery.

MEDICAL KNOWLEDGE, PATIENT CARE, AND PROCEDURAL SKILLS

As originally developed, the third dimension of the EM Model was called the Listing of Conditions and Components. The listing contained the fundamental conditions for which patients presented to emergency departments, and was 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.

The Listing of Conditions and Components also contained two appendices. Appendix 1 outlined the diagnostic and/or therapeutic procedures and tests considered essential to the clinical practice of Emergency Medicine. Appendix 2 listed the other essential components and core competencies of EM practice.

With each biennial Task Force review, the Listing of Conditions and Components has evolved to maintain consistency with the current clinical practice of EM. In 2011, it was determined that the contents of the two appendices represented core components of EM knowledge, which, when combined with the Listing of Conditions and Components, encompassed the universe of knowledge that all practicing emergency physicians should possess. Consequently, the appendices were incorporated into the body of the document and the entire section was renamed to Medical Knowledge, Patient Care, and Procedural Skills (Table 4). This change strengthened the inherent link between the EM Model and the ACGME six core competencies.

NOTE: The listing of Medical Knowledge, Patient Care, and Procedural Skills is not intended to be comprehensive. It is intended to be representative of the most frequent conditions seen, those with the most serious implications for patients presenting to the emergency department, and the core knowledge and skills required to provide safe and effective patient care.

Table 4. Medical Knowledge, Patient Care, and Procedural Skills

1.0 SIGNS, SYMPTOMS, AND PRESENTATIONS

		Critical	Emergent	Lower Acuity
1.1	**Abnormal Vital Sign Physiology**			
1.1.1	Hypothermia	X	X	X
1.1.2	Fever	X	X	X
1.1.3	Bradycardia	X	X	X
1.1.4	Tachycardia	X	X	
1.1.5	Apnea	X		
1.1.6	Tachypnea	X	X	
1.1.7	Hypoxia	X	X	
1.1.8	Hypotension	X	X	
1.1.9	Hypertension	X	X	X
1.2	**Pain**			
1.2.1	Pain (unspecified)	X	X	X
1.2.2	Headache (See 12.3)	X	X	X
1.2.3	Eye pain		X	X
1.2.4	Chest pain	X	X	X
1.2.5	Abdominal pain	X	X	X
1.2.6	Pelvic pain	X	X	X
1.2.7	Back pain	X	X	X
1.3	**General**			
1.3.1	Altered mental status	X	X	X
1.3.2	Anuria		X	
1.3.3	Anxiety			X
1.3.4	Ascites		X	X
1.3.5	Ataxia		X	X
1.3.6	Auditory disturbances			X
1.3.7	Bleeding	X	X	X
1.3.8	Congestion/Rhinorrhea			X
1.3.9	Constipation			X
1.3.10	Cough		X	X
1.3.11	Crying/Fussiness		X	X
1.3.12	Cyanosis	X		
1.3.13	Dehydration	X	X	
1.3.14	Diarrhea		X	X
1.3.15	Dysmenorrhea			X
1.3.16	Dysphagia		X	X
1.3.17	Dysuria			X
1.3.18	Edema		X	X
1.3.19	Failure to thrive		X	X
1.3.20	Fatigue/Malaise		X	X
1.3.21	Feeding problems			X
1.3.22	Hematemesis	X	X	
1.3.23	Hematuria		X	X
1.3.24	Hemoptysis	X	X	

1.3.25	Hiccup			X
1.3.26	Jaundice		X	
1.3.27	Joint swelling		X	X
1.3.28	Lethargy	X	X	X
1.3.29	Lightheadedness/Dizziness		X	X
1.3.30	Limp		X	X
1.3.31	Lymphadenopathy			X
1.3.32	Mechanical and indwelling devices, complications	X	X	X
1.3.33	Nausea/Vomiting		X	X
1.3.34	Occupational exposure		X	X
1.3.35	Palpitations	X	X	X
1.3.36	Paralysis	X	X	
1.3.37	Paresthesia/Dysesthesia		X	X
1.3.38	Poisoning	X	X	X
1.3.39	Pruritus		X	X
1.3.40	Rash	X	X	X
1.3.41	Rectal bleeding	X	X	X
1.3.42	Shock	X		
1.3.43	Shortness of breath	X	X	
1.3.44	Sore throat		X	X
1.3.45	Stridor	X	X	
1.3.46	Syncope	X	X	X
1.3.47	Tinnitus			X
1.3.48	Tremor		X	X
1.3.49	Urinary incontinence			X
1.3.50	Urinary retention		X	
1.3.51	Vaginal bleeding	X	X	X
1.3.52	Vaginal discharge			X
1.3.53	Vertigo		X	X
1.3.54	Visual disturbances	X	X	X
1.3.55	Weakness		X	X
1.3.56	Wheezing	X	X	

2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS

			Critical	Emergent	Lower Acuity
2.1	**Abdominal Wall**				
	2.1.1	Hernias		X	X
2.2	**Esophagus**				
	2.2.1	Infectious disorders			
		2.2.1.1 Candida (See 4.4.2.1, 7.5.7)		X	X
		2.2.1.2 Viral esophagitis		X	X
	2.2.2	Inflammatory disorders			
		2.2.2.1 Esophagitis		X	X
		2.2.2.2 Gastroesophageal reflux (GERD)			X
		2.2.2.3 Toxic effects of caustic (See 17.1.14)			
		2.2.2.3.1 Acid	X	X	
		2.2.2.3.2 Alkali	X	X	
	2.2.3	Motor abnormalities			
		2.2.3.1 Spasms			X
	2.2.4	Structural disorders			
		2.2.4.1 Boerhaave's syndrome	X	X	
		2.2.4.2 Diverticula		X	X
		2.2.4.3 Foreign body		X	
		2.2.4.4 Hernias		X	X
		2.2.4.5 Mallory-Weiss syndrome	X	X	
		2.2.4.6 Stricture and stenosis		X	X
		2.2.4.7 Tracheoesophageal fistula	X	X	
		2.2.4.8 Varices	X	X	
	2.2.5	Tumors		X	X
2.3	**Liver**				
	2.3.1	Cirrhosis		X	X
		2.3.1.1 Alcoholic		X	X
		2.3.1.2 Biliary obstructive		X	
		2.3.1.3 Drug-induced		X	X
	2.3.2	Hepatorenal failure	X	X	
	2.3.3	Infectious disorders		X	X
		2.3.3.1 Abscess		X	
		2.3.3.2 Hepatitis			
		2.3.3.2.1 Acute		X	X
		2.3.3.2.2 Chronic			X
	2.3.4	Tumors		X	X
2.4	**Gall Bladder and Biliary Tract**				
	2.4.1	Cholangitis	X	X	
	2.4.2	Cholecystitis		X	
	2.4.3	Cholelithiasis/Choledocholithiasis		X	X
	2.4.4	Tumors		X	X
2.5	**Pancreas**				
	2.5.1	Pancreatitis	X	X	
	2.5.2	Tumors		X	X

2.6	**Peritoneum**				
	2.6.1	Spontaneous bacterial peritonitis	X	X	
2.7	**Stomach**				
	2.7.1	Infectious disorders			X
	2.7.2	Inflammatory disorders			
		2.7.2.1 Gastritis		X	X
	2.7.3	Peptic ulcer disease		X	X
		2.7.3.1 Hemorrhage	X	X	
		2.7.3.2 Perforation	X	X	
	2.7.4	Structural disorders			
		2.7.4.1 Congenital hypertrophic pyloric stenosis		X	
		2.7.4.2 Foreign body		X	X
	2.7.5	Tumors		X	X
2.8	**Small Bowel**				
	2.8.1	Infectious disorders		X	X
	2.8.2	Inflammatory disorders			
		2.8.2.1 Regional enteritis/Crohn’s disease		X	X
	2.8.3	Motor abnormalities			
		2.8.3.1 Obstruction		X	
		2.8.3.2 Paralytic ileus		X	
	2.8.4	Structural disorders			
		2.8.4.1 Aortoenteric fistula	X		
		2.8.4.2 Congenital anomalies		X	X
		2.8.4.3 Intestinal malabsorption		X	X
		2.8.4.4 Meckel's diverticulum		X	X
	2.8.5	Tumors		X	X
	2.8.6	Vascular insufficiency	X	X	
2.9	**Large Bowel**				
	2.9.1	Infectious disorders			
		2.9.1.1 Antibiotic-associated		X	
		2.9.1.2 Bacterial		X	X
		2.9.1.3 Parasitic		X	X
		2.9.1.4 Viral		X	X
	2.9.2	Inflammatory disorders			
		2.9.2.1 Appendicitis		X	
		2.9.2.2 Necrotizing enterocolitis (NEC)	X	X	
		2.9.2.3 Radiation colitis		X	
		2.9.2.4 Ulcerative colitis		X	X
	2.9.3	Motor abnormalities			
		2.9.3.1 Hirschsprung’s disease		X	X
		2.9.3.2 Irritable bowel			X
		2.9.3.3 Obstruction		X	
	2.9.4	Structural disorders			
		2.9.4.1 Congenital anomalies		X	X
		2.9.4.2 Diverticula		X	X
		2.9.4.3 Intussusception	X	X	
		2.9.4.4 Volvulus	X	X	

2.9.5	Tumors			X	X
2.10	**Rectum and Anus**				
2.10.1	Infectious disorders				
	2.10.1.1	Perianal/Anal abscess		X	X
	2.10.1.2	Perirectal abscess		X	
	2.10.1.3	Pilonidal cyst and abscess		X	X
2.10.2	Inflammatory disorders				
	2.10.2.1	Proctitis			X
2.10.3	Structural disorders				
	2.10.3.1	Anal fissure			X
	2.10.3.2	Anal fistula		X	X
	2.10.3.3	Congenital anomalies			X
	2.10.3.4	Foreign body		X	X
	2.10.3.5	Hemorrhoids			X
	2.10.3.6	Rectal prolapse		X	
2.10.4	Tumors			X	X
2.11	**Spleen**				
2.11.1	Asplenism			X	X
2.11.2	Splenomegaly				X
2.11.3	Vascular insufficiency/Infarction		X	X	X

3.0 CARDIOVASCULAR DISORDERS

			Critical	Emergent	Lower Acuity
3.1	**Cardiopulmonary Arrest**		X		
	3.1.1	Sudden unexpected infant death (SUID)	X		
	3.1.2	Pulseless electrical activity	X		
3.2	**Congenital Abnormalities of the Cardiovascular System**		X	X	X
3.3	**Disorders of Circulation**				
	3.3.1	Arterial			
		3.3.1.1 Aneurysm	X	X	X
		3.3.1.2 Aortic dissection	X		
		3.3.1.3 Thromboembolism	X	X	
	3.3.2	Venous			
		3.3.2.1 Thromboembolism (See 16.6.2)	X	X	
3.4	**Disturbances of Cardiac Rhythm**				
	3.4.1	Cardiac dysrhythmias	X	X	X
		3.4.1.1 Ventricular	X	X	
		3.4.1.2 Supraventricular	X	X	X
	3.4.2	Conduction disorders	X	X	X
3.5	**Diseases of the Myocardium, Acquired**				
	3.5.1	Cardiac failure	X	X	
		3.5.1.1 Cor pulmonale	X	X	
		3.5.1.2 High output	X	X	
		3.5.1.3 Low output	X	X	
	3.5.2	Cardiomyopathy	X	X	X
		3.5.2.1 Hypertrophic	X	X	X
	3.5.3	Congestive heart failure	X	X	
	3.5.4	Coronary syndromes	X	X	
	3.5.5	Ischemic heart disease	X	X	
	3.5.6	Myocardial infarction	X	X	
	3.5.7	Myocarditis	X	X	X
	3.5.8	Ventricular aneurysm	X	X	X
3.6	**Diseases of the Pericardium**				
	3.6.1	Pericardial tamponade (See 18.1.2.6)	X	X	
	3.6.2	Pericarditis		X	X
3.7	**Endocarditis**		X	X	
3.8	**Hypertension**		X	X	X
3.9	**Tumors**		X	X	
3.10	**Valvular Disorders**		X	X	X

4.0 CUTANEOUS DISORDERS

			Critical	Emergent	Lower Acuity
4.1	**Cancers of the Skin**				
	4.1.1	Basal cell			X
	4.1.2	Kaposi's sarcoma			X
	4.1.3	Melanoma			X
	4.1.4	Squamous cell			X
4.2	**Ulcerative Lesions**				
	4.2.1	Decubitus		X	X
	4.2.2	Venous stasis			X
4.3	**Dermatitis**				
	4.3.1	Atopic			X
	4.3.2	Contact			X
	4.3.3	Eczema			X
	4.3.4	Psoriasis			X
	4.3.5	Seborrhea			X
4.4	**Infections**				
	4.4.1	Bacterial			
		4.4.1.1 Abscess		X	X
		4.4.1.2 Cellulitis		X	X
		4.4.1.3 Erysipelas		X	
		4.4.1.4 Impetigo			X
		4.4.1.5 Necrotizing infection	X	X	
	4.4.2	Fungal			
		4.4.2.1 Candida (See 2.2.1.1, 7.5.7)			X
		4.4.2.2 Dermatophytes			X
	4.4.3	Ectoparasites			X
	4.4.4	Viral			
		4.4.4.1 Aphthous ulcers			X
		4.4.4.2 Childhood exanthems (See 10.6.8, 10.6.9)			X
		4.4.4.3 Herpes simplex (See 10.6.4, 13.1.3.1)			X
		4.4.4.4 Herpes zoster (See 10.6.5)		X	X
		4.4.4.5 Human papillomavirus (HPV) (See 13.1.3.2)			X
		4.4.4.6 Molluscum contagiosum			X
4.5	**Maculopapular Lesions**				
	4.5.1	Erythema multiforme		X	X
	4.5.2	Erythema nodosum			X
	4.5.3	Henoch-Schönlein purpura (HSP)		X	
	4.5.4	Pityriasis rosea			X
	4.5.5	Purpura		X	X
	4.5.6	Urticaria		X	X
4.6	**Papular/Nodular Lesions**				

4.6.1	Hemangioma/Lymphangioma			X
4.6.2	Lipoma			X
4.6.3	Sebaceous cyst			X

4.7 **Vesicular/Bullous Lesions**

4.7.1	Pemphigus		X	
4.7.2	Staphylococcal scalded skin syndrome	X	X	
4.7.3	Stevens-Johnson syndrome	X	X	
4.7.4	Toxic epidermal necrolysis	X	X	
4.7.5	Bullous pemphigoid		X	X

5.0 ENDOCRINE, METABOLIC, AND NUTRITIONAL DISORDERS

		Critical	Emergent	Lower Acuity
5.1	**Acid-base Disturbances**			
5.1.1	Metabolic or respiratory			
5.1.1.1	Acidosis	X	X	
5.1.1.2	Alkalosis	X	X	X
5.1.2	Mixed acid-base balance disorder	X	X	
5.2	**Adrenal Disease**			
5.2.1	Corticoadrenal insufficiency	X	X	
5.2.2	Cushing's syndrome		X	X
5.3	**Fluid and Electrolyte Disturbances**			
5.3.1	Calcium metabolism	X	X	X
5.3.2	Fluid overload/Volume depletion	X	X	
5.3.3	Potassium metabolism	X	X	X
5.3.4	Sodium metabolism	X	X	X
5.3.5	Magnesium metabolism		X	X
5.3.6	Phosphorus metabolism		X	X
5.4	**Glucose Metabolism**			
5.4.1	Diabetes mellitus			
5.4.1.1	Type I	X	X	X
5.4.1.2	Type II		X	X
5.4.1.3	Complications in glucose metabolism			
5.4.1.3.1	Diabetic ketoacidosis (DKA)	X	X	
5.4.1.3.2	Hyperglycemia		X	X
5.4.1.3.3	Hyperosmolar hyperglycemic state	X	X	
5.4.1.3.4	Hypoglycemia	X	X	
5.5	**Nutritional Disorders**			
5.5.1	Vitamin deficiencies			X
5.5.2	Wernicke-Korsakoff syndrome		X	
5.5.3	Malabsorption		X	X
5.6	**Parathyroid Disease**		X	X
5.7	**Pituitary Disorders**		X	X
5.7.1	Panhypopituitarism		X	
5.8	**Thyroid Disorders**			
5.8.1	Hyperthyroidism	X	X	X
5.8.2	Hypothyroidism	X	X	X
5.8.3	Thyroiditis		X	X
5.9	**Tumors of Endocrine Glands**			
5.9.1	Adrenal		X	X
5.9.1.1	Pheochromocytoma	X	X	

5.9.2	Pituitary	X	X
5.9.3	Thyroid	X	X

6.0 ENVIRONMENTAL DISORDERS

		Critical	Emergent	Lower Acuity
6.1	**Bites and Envenomation** (See 18.1.3.2)			
6.1.1	Arthropods		X	X
6.1.1.1	Insects			X
6.1.1.2	Arachnida		X	X
6.1.2	Mammals		X	X
6.1.3	Marine organisms (See 17.1.28)	X	X	X
6.1.4	Reptiles	X	X	X
6.2	**Dysbarism**			
6.2.1	Air embolism	X	X	
6.2.2	Barotrauma	X	X	X
6.2.3	Decompression syndrome	X	X	
6.3	**Electrical Injury** (See 18.1.3.3.1)	X	X	X
6.3.1	Lightning	X	X	
6.4	**High-altitude Illness**			
6.4.1	Acute mountain sickness		X	X
6.4.2	Barotrauma of ascent		X	X
6.4.3	High-altitude cerebral edema	X	X	
6.4.4	High-altitude pulmonary edema	X	X	
6.5	**Submersion Incidents**			
6.5.1	Cold water immersion	X	X	
6.5.2	Near drowning	X	X	
6.6	**Temperature-related Illness**			
6.6.1	Heat			
6.6.1.1	Heat exhaustion		X	X
6.6.1.2	Heat stroke	X		
6.6.2	Cold			
6.6.2.1	Frostbite		X	X
6.6.2.2	Hypothermia	X	X	
6.7	**Radiation Emergencies**	X	X	X

7.0 HEAD, EAR, EYE, NOSE, THROAT DISORDERS

		Critical	Emergent	Lower Acuity
7.1	**Ear**			
7.1.1	Foreign body		X	X
7.1.1.1	Impacted cerumen			X
7.1.2	Labyrinthitis			X
7.1.3	Mastoiditis		X	
7.1.4	Ménière's disease			X
7.1.5	Otitis externa			X
7.1.5.1	Infective			X
7.1.5.1.1	Malignant		X	
7.1.6	Otitis media		X	X
7.1.7	Perforated tympanic membrane (See 18.1.11.2)			X
7.1.8	Perichondritis		X	X
7.2	**Eye**			
7.2.1	External eye			
7.2.1.1	Blepharitis			X
7.2.1.2	Burn confined to eye (See 18.1.10.2)		X	
7.2.1.3	Conjunctivitis			X
7.2.1.4	Corneal abrasions (See 18.1.10.1)		X	X
7.2.1.5	Dacryocystitis		X	X
7.2.1.6	Disorders of lacrimal system			X
7.2.1.7	Foreign body		X	X
7.2.1.8	Inflammation of the eyelids			X
7.2.1.8.1	Chalazion			X
7.2.1.8.2	Hordeolum			X
7.2.1.9	Keratitis		X	X
7.2.2	Anterior pole			
7.2.2.1	Glaucoma		X	X
7.2.2.2	Hyphema (See 18.1.10.5)		X	X
7.2.2.3	Iritis (See 18.1.10.9)		X	X
7.2.2.4	Hypopyon		X	
7.2.3	Posterior pole			
7.2.3.1	Choroiditis/Chorioretinitis		X	
7.2.3.2	Optic neuritis		X	
7.2.3.3	Papilledema	X	X	
7.2.3.4	Retinal detachments and defects (See 18.1.10.8)		X	
7.2.3.5	Retinal vascular occlusion		X	
7.2.4	Orbit			
7.2.4.1	Cellulitis			
7.2.4.1.1	Preseptal		X	
7.2.4.1.2	Postseptal		X	
7.2.4.2	Purulent endophthalmitis		X	
7.3	**Cerebral Venous Sinus Thrombosis**	X	X	
7.3.1	Cavernous sinus thrombosis	X	X	
7.4	**Nose**			

7.4.1	Epistaxis		X	X	X
7.4.2	Foreign body			X	X
7.4.3	Rhinitis				X
7.4.4	Sinusitis				X
7.5	**Oropharynx/Throat**				
7.5.1	Dentalgia				X
7.5.2	Diseases of the oral soft tissue				
	7.5.2.1	Ludwig's angina	X	X	
	7.5.2.2	Stomatitis			X
7.5.3	Diseases of the salivary glands				
	7.5.3.1	Sialolithiasis		X	X
	7.5.3.2	Suppurative parotitis		X	
7.5.4	Foreign body		X	X	
7.5.5	Gingival and periodontal disorders				
	7.5.5.1	Gingivostomatitis			X
7.5.6	Larynx/Trachea				
	7.5.6.1	Epiglottitis (See 16.1.1.2)	X	X	
	7.5.6.2	Laryngitis			X
	7.5.6.3	Tracheitis		X	X
7.5.7	Oral candidiasis (See 2.2.1.1, 4.4.2.1)				X
7.5.8	Dental abscess			X	X
7.5.9	Peritonsillar abscess			X	
7.5.10	Pharyngitis/Tonsillitis				X
7.5.11	Retropharyngeal abscess		X	X	
7.5.12	Temporomandibular joint disorders				X
7.6	**Tumors**			X	X

8.0 HEMATOLOGIC DISORDERS

		Critical	Emergent	Lower Acuity
8.1	**Blood Transfusion**			
8.1.1	Complications	X	X	
8.2	**Hemostatic Disorders**			
8.2.1	Coagulation defects	X	X	X
8.2.1.1	Acquired	X	X	X
8.2.1.2	Hemophilias	X	X	X
8.2.2	Disseminated intravascular coagulation	X		
8.2.3	Platelet disorders	X	X	X
8.2.3.1	Thrombocytopenia		X	X
8.3	**Lymphomas**		X	X
8.4	**Pancytopenia**	X	X	
8.5	**Red Blood Cell Disorders**			
8.5.1	Anemias			
8.5.1.1	Aplastic	X	X	
8.5.1.2	Hemoglobinopathies		X	X
8.5.1.2.1	Sickle cell disease		X	X
8.5.1.3	Hemolytic		X	
8.5.1.4	Hypochromic			
8.5.1.4.1	Iron deficiency		X	X
8.5.1.5	Megaloblastic		X	X
8.5.2	Polycythemia		X	X
8.5.3	Methemoglobinemia (See 17.1.29)	X	X	
8.6	**White Blood Cell Disorders**			
8.6.1	Leukemia		X	X
8.6.2	Multiple myeloma		X	X
8.6.3	Leukopenia		X	X

9.0 IMMUNE SYSTEM DISORDERS

			Critical	Emergent	Lower Acuity
9.1	**Collagen Vascular Disease**				
	9.1.1	Raynaud's disease			X
	9.1.2	Reiter's syndrome		X	X
	9.1.3	Rheumatoid arthritis (See 11.3.1.3)		X	X
	9.1.4	Scleroderma		X	X
	9.1.5	Systemic lupus erythematosus		X	X
	9.1.6	Vasculitis		X	X
9.2	**Hypersensitivity**				
	9.2.1	Allergic reaction		X	X
	9.2.2	Anaphylaxis	X		
	9.2.3	Angioedema	X	X	
	9.2.4	Drug allergies	X	X	X
9.3	**Transplant-related Problems**		X	X	X
	9.3.1	Immunosuppression		X	X
	9.3.2	Rejection	X	X	
9.4	**Immune Complex Disorders**			X	
	9.4.1	Kawasaki syndrome		X	X
	9.4.2	Rheumatic fever		X	X
	9.4.3	Sarcoidosis		X	X
	9.4.4	Post-streptococcal glomerulonephritis (See 15.3.1)		X	

10.0 SYSTEMIC INFECTIOUS DISORDERS

		Critical	Emergent	Lower Acuity
10.1	**Bacterial**			
10.1.1	Bacterial food poisoning		X	X
10.1.1.1	Botulism	X	X	
10.1.2	Chlamydia		X	X
10.1.3	Gonococcus		X	X
10.1.4	Meningococcus	X	X	
10.1.5	Mycobacterium			
10.1.5.1	Atypical mycobacteria		X	X
10.1.5.2	Tuberculosis		X	X
10.1.6	Other bacterial diseases	X	X	
10.1.6.1	Gas gangrene (See 11.6.3)	X	X	
10.1.7	Sepsis/Bacteremia	X	X	
10.1.7.1	Shock	X		
10.1.7.2	Systemic inflammatory response syndrome (SIRS)	X	X	
10.1.7.3	Toxic shock syndrome	X	X	
10.1.8	Spirochetes			
10.1.8.1	Syphilis		X	X
10.1.9	Tetanus	X	X	
10.2	**Biological Warfare Agents**	X	X	
10.3	**Fungal Infections**		X	X
10.4	**Protozoan/Parasites**			
10.4.1	Malaria		X	
10.4.2	Toxoplasmosis		X	X
10.5	**Tick-Borne**			
10.5.1	Ehrlichiosis		X	
10.5.2	Lyme disease		X	
10.5.3	Rocky Mountain spotted fever		X	
10.6	**Viral**		X	X
10.6.1	Infectious mononucleosis		X	X
10.6.2	Influenza/Parainfluenza		X	X
10.6.3	Hantavirus	X	X	
10.6.4	Herpes simplex (See 4.4.4.3, 13.1.3.1)		X	X
10.6.5	Herpes zoster/Varicella (See 4.4.4.4)		X	X
10.6.6	HIV/AIDS	X	X	X
10.6.7	Rabies	X		
10.6.8	Roseola (See 4.4.4.2)			X
10.6.9	Rubella (See 4.4.4.2)			X
10.7	**Emerging Infections, Pandemics, and Drug Resistance**	X	X	

11.0 MUSCULOSKELETAL DISORDERS (NONTRAUMATIC)

		Critical	Emergent	Lower Acuity
11.1	**Bony Abnormalities**			
11.1.1	Aseptic/Avascular necrosis		X	X
11.1.2	Osteomyelitis		X	
11.1.3	Tumors		X	X
11.2	**Disorders of the Spine**			
11.2.1	Disc disorders		X	X
11.2.2	Inflammatory spondylopathies		X	X
11.2.3	Low back pain			
11.2.3.1	Cauda equina syndrome (See 18.1.15.1)	X	X	
11.2.3.2	Sacroiliitis			X
11.2.3.3	Sprains/Strains			X
11.3	**Joint Abnormalities**			
11.3.1	Arthritis			
11.3.1.1	Septic		X	
11.3.1.2	Crystal arthropathies		X	X
11.3.1.3	Rheumatoid (See 9.1.3)			X
11.3.1.4	Juvenile			X
11.3.1.5	Osteoarthrosis			X
11.3.2	Congenital dislocation of the hip		X	X
11.3.3	Slipped capital femoral epiphysis		X	
11.4	**Muscle Abnormalities**			
11.4.1	Myositis			X
11.4.2	Rhabdomyolysis	X	X	
11.5	**Overuse Syndromes**			
11.5.1	Bursitis			X
11.5.2	Muscle strains			X
11.5.3	Peripheral nerve syndrome			X
11.5.3.1	Carpal tunnel syndrome			X
11.5.4	Tendonitis			X
11.6	**Soft Tissue Infections**			
11.6.1	Fasciitis		X	
11.6.2	Felon		X	
11.6.3	Gangrene (See 10.1.6.1)	X	X	
11.6.4	Paronychia		X	X
11.6.5	Synovitis/Tenosynovitis		X	X

12.0 NERVOUS SYSTEM DISORDERS

		Critical	Emergent	Lower Acuity
12.1	**Cranial Nerve Disorders**			X
12.1.1	Idiopathic facial nerve paralysis (Bell's palsy)			X
12.1.2	Trigeminal neuralgia			X
12.2	**Demyelinating Disorders**	X	X	
12.2.1	Multiple sclerosis		X	X
12.3	**Headache** (See 1.2.2)	X	X	X
12.3.1	Tension			X
12.3.2	Vascular		X	X
12.3.3	Cluster		X	X
12.4	**Hydrocephalus**		X	X
12.4.1	Normal pressure		X	X
12.4.2	VP shunt		X	
12.5	**Infections/Inflammatory Disorders**			
12.5.1	Encephalitis	X	X	
12.5.2	Intracranial and intraspinal abscess	X	X	
12.5.3	Meningitis			
12.5.3.1	Bacterial	X	X	
12.5.3.2	Viral		X	X
12.5.4	Myelitis		X	
12.5.5	Neuritis			X
12.6	**Movement Disorders**		X	X
12.6.1	Dystonic reaction		X	X
12.6.2	Chorea/Choreiform			X
12.6.3	Tardive dyskinesia			X
12.7	**Neuromuscular Disorders**			
12.7.1	Guillain-Barré syndrome	X	X	
12.7.2	Myasthenia gravis	X	X	X
12.7.3	Peripheral neuropathy		X	
12.8	**Other Conditions of the Brain**			
12.8.1	Dementia (See 14.5.3)			X
12.8.2	Parkinson's disease			X
12.8.3	Pseudotumor cerebri		X	X
12.9	**Seizure Disorders**	X	X	X
12.9.1	Febrile		X	X
12.9.2	Neonatal		X	
12.9.3	Status epilepticus	X		
12.9.3.1	Nonconvulsive	X		
12.10	**Spinal Cord Compression**	X	X	

12.11 **Stroke**				
12.11.1	Hemorrhagic			
	12.11.1.1 Intracerebral	X	X	
	12.11.1.2 Subarachnoid	X	X	
12.11.2	Ischemic			
	12.11.2.1 Embolic	X	X	
	12.11.2.2 Thrombotic	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**			
13.1.1	Cervix			
13.1.1.1	Cervicitis and endocervicitis		X	X
13.1.1.2	Tumors			X
13.1.2	Infectious disorders			
13.1.2.1	Pelvic inflammatory disease		X	
13.1.2.1.1	Fitz-Hugh-Curtis syndrome		X	
13.1.2.1.2	Tuboovarian abscess		X	
13.1.2.2	Urethritis			X
13.1.3	Lesions			
13.1.3.1	Herpes simplex (See 4.4.4.3, 10.6.4)			X
13.1.3.2	Human papillomavirus (HPV) (See 4.4.4.5)			X
13.1.4	Ovary			
13.1.4.1	Cyst			X
13.1.4.2	Torsion		X	
13.1.4.3	Tumors		X	X
13.1.5	Uterus			
13.1.5.1	Dysfunctional bleeding		X	X
13.1.5.2	Endometriosis			X
13.1.5.3	Prolapse			X
13.1.5.4	Tumors		X	X
13.1.5.4.1	Gestational trophoblastic disease		X	
13.1.5.4.2	Leiomyoma			X
13.1.6	Vagina and vulva			
13.1.6.1	Bartholin's cyst		X	X
13.1.6.2	Foreign body		X	X
13.1.6.3	Vaginitis/Vulvovaginitis			X
13.2	**Normal Pregnancy**			X
13.3	**Complications of Pregnancy**			
13.3.1	Abortion		X	
13.3.2	Ectopic pregnancy	X	X	
13.3.3	Hemolysis, elevated liver enzymes, low platelets (HELLP) syndrome	X	X	
13.3.4	Hemorrhage, antepartum			
13.3.4.1	Abruptio placentae (See 18.2.1)	X	X	
13.3.4.2	Placenta previa	X	X	
13.3.5	Hyperemesis gravidarum		X	X
13.3.6	Gestational hypertension		X	X
13.3.6.1	Eclampsia	X	X	
13.3.6.2	Preeclampsia		X	
13.3.7	Infections		X	
13.3.8	Rh isoimmunization		X	
13.3.9	First trimester bleeding	X	X	X

	13.3.10	Gestational diabetes		X	X
13.4	**High-risk Pregnancy**		X	X	
	13.4.1	Assisted reproductive therapies	X	X	X
13.5	**Normal Labor and Delivery**			X	X
13.6	**Complications of Labor**				
	13.6.1	Fetal distress	X		
	13.6.2	Premature labor (See 18.2.3)		X	
	13.6.3	Premature rupture of membranes		X	
	13.6.4	Rupture of uterus (See 18.2.4)	X		
13.7	**Complications of Delivery**				
	13.7.1	Malposition of fetus	X	X	
	13.7.2	Nuchal cord	X		
	13.7.3	Prolapse of cord	X		
13.8	**Postpartum Complications**				
	13.8.1	Endometritis		X	
	13.8.2	Hemorrhage	X	X	
	13.8.3	Mastitis		X	X
	13.8.4	Pituitary infarction	X	X	
13.9	**Contraception**			X	X

14.0 **PSYCHOBEHAVIORAL DISORDERS**

		Critical	Emergent	Lower Acuity
14.1	**Addictive Behavior**			
14.1.1	Alcohol dependence			X
14.1.2	Drug dependence			X
14.1.3	Eating disorders		X	X
14.1.4	Substance abuse			X
14.1.5	Tobacco dependence			X
14.2	**Mood Disorders and Thought Disorders**			
14.2.1	Acute psychosis	X	X	
14.2.2	Bipolar disorder		X	X
14.2.3	Depression		X	X
14.2.3.1	Suicidal risk	X	X	
14.2.4	Grief reaction			X
14.2.5	Schizophrenia		X	X
14.3	**Factitious Disorders**			
14.3.1	Drug-diversion behavior			X
14.3.2	Munchausen syndrome/Munchausen by proxy		X	X
14.4	**Neurotic Disorders**			
14.4.1	Anxiety/Panic			X
14.4.2	Obsessive compulsive			X
14.4.3	Phobic			X
14.4.4	Post-traumatic stress			X
14.5	**Organic Psychoses**			
14.5.1	Chronic organic psychotic conditions			X
14.5.1.1	Alcoholic psychoses		X	X
14.5.1.2	Drug psychoses		X	X
14.5.2	Delirium		X	
14.5.3	Dementia (See 12.8.1)			X
14.5.4	Intoxication and/or withdrawal			
14.5.4.1	Alcohol (See 17.1.2)	X	X	X
14.5.4.2	Hallucinogens (See 17.1.17)		X	X
14.5.4.3	Opioids (See 17.1.1.3)	X	X	X
14.5.4.4	Sedatives/Hypnotics/Anxiolytics (See 17.1.35)	X	X	X
14.5.4.5	Sympathomimetics and cocaine (See 17.1.36; 17.1.15)	X	X	X
14.5.4.6	Anticholinergic (See 17.1.4)	X	X	X
14.6	**Patterns of Violence/Abuse/Neglect**			
14.6.1	Interpersonal violence			
14.6.1.1	Child, intimate partner, elder		X	
14.6.2	Homicidal Risk	X	X	
14.6.3	Sexual assault		X	
14.6.4	Staff/Patient safety		X	

14.7	**Personality Disorders**		X
14.8	**Psychosomatic Disorders**		
	14.8.1	Hypochondriasis	X
	14.8.2	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	
15.3	**Glomerular Disorders**			
15.3.1	Glomerulonephritis (See 9.4.4)		X	X
15.3.2	Nephrotic syndrome		X	X
15.4	**Infection**			
15.4.1	Cystitis			X
15.4.2	Pyelonephritis		X	
15.5	**Male Genital Tract**			
15.5.1	Genital lesions			X
15.5.2	Hernias		X	X
15.5.3	Inflammation/Infection			
15.5.3.1	Balanitis/Balanoposthitis		X	X
15.5.3.2	Epididymitis/Orchitis		X	X
15.5.3.3	Gangrene of the scrotum (Fournier's gangrene)	X	X	
15.5.3.4	Prostatitis		X	X
15.5.3.5	Urethritis			X
15.5.4	Structural			
15.5.4.1	Paraphimosis/Phimosis		X	
15.5.4.2	Priapism		X	
15.5.4.3	Prostatic hypertrophy (BPH)			X
15.5.4.4	Torsion		X	
15.5.5	Testicular masses			X
15.5.6	Tumors			
15.5.6.1	Prostate			X
15.5.6.2	Testis			X
15.6	**Nephritis**		X	X
15.6.1	Hemolytic uremic syndrome		X	
15.7	**Structural Disorders**			
15.7.1	Calculus of urinary tract		X	X
15.7.2	Obstructive uropathy		X	
15.7.3	Polycystic kidney disease			X
15.8	**Tumors**			X

16.0 THORACIC-RESPIRATORY DISORDERS

		Critical	Emergent	Lower Acuity
16.1	**Acute Upper Airway Disorders**			
16.1.1	Infections			
16.1.1.1	Croup		X	
16.1.1.2	Epiglottitis (See 7.5.6.1)	X	X	
16.1.2	Obstruction	X		
16.1.3	Tracheostomy/Complications	X	X	
16.2	**Disorders of Pleura, Mediastinum, and Chest Wall**			
16.2.1	Costochondritis			X
16.2.2	Mediastinitis	X	X	
16.2.3	Pleural effusion		X	X
16.2.4	Pleuritis			X
16.2.5	Pneumomediastinum		X	
16.2.6	Pneumothorax (See 18.1.2.7)			
16.2.6.1	Simple		X	
16.2.6.2	Tension	X		
16.2.6.3	Open	X		
16.2.7	Empyema		X	X
16.3	**Noncardiogenic Pulmonary Edema**	X	X	
16.4	**Obstructive/Restrictive Lung Disease**			
16.4.1	Asthma/Reactive airway disease	X	X	
16.4.2	Bronchitis and bronchiolitis		X	X
16.4.3	Bronchopulmonary dysplasia		X	X
16.4.4	Chronic obstructive pulmonary disease	X	X	X
16.4.5	Cystic fibrosis	X	X	X
16.4.6	Environmental/Industrial exposure	X	X	X
16.4.7	Foreign body	X	X	
16.5	**Physical and Chemical Irritants/Insults**			
16.5.1	Pneumoconiosis		X	X
16.5.2	Toxic effects of gases, fumes, vapors (See 18.1.3.3.2)	X	X	X
16.6	**Pulmonary Embolism/Infarct**			
16.6.1	Septic emboli	X	X	
16.6.2	Venous thromboembolism (See 3.3.2.1)	X	X	
16.6.3	Fat emboli	X	X	
16.7	**Pulmonary Infections**			
16.7.1	Lung abscess		X	
16.7.2	Pneumonia			
16.7.2.1	Aspiration	X	X	
16.7.2.2	Community-acquired	X	X	X
16.7.2.3	Health care-associated	X	X	X
16.7.3	Pulmonary tuberculosis		X	
16.7.4	Respiratory syncytial virus (RSV)	X	X	X

16.7.5	Pertussis	X	X	X
16.8	**Tumors**			
16.8.1	Breast			X
16.8.2	Pulmonary		X	X
16.9	**Pulmonary Hypertension**	X	X	X

17.0 TOXICOLOGIC DISORDERS

		Critical	Emergent	Lower Acuity
17.1	**Drug and Chemical Classes**			
17.1.1	Analgesics			
17.1.1.1	Acetaminophen		X	
17.1.1.2	Nonsteroidal anti-inflammatories (NSAIDS)		X	X
17.1.1.3	Opiates and related narcotics (See 14.5.4.3)	X	X	
17.1.1.4	Salicylates	X	X	
17.1.2	Alcohol (See 14.5.4.1)			
17.1.2.1	Ethanol	X	X	X
17.1.2.2	Glycol	X	X	
17.1.2.3	Isopropyl	X	X	X
17.1.2.4	Methanol	X	X	
17.1.3	Anesthetics	X	X	
17.1.4	Anticholinergics/Cholinergics (See 14.5.4.6)	X	X	
17.1.5	Anticoagulants/Antithrombotics	X	X	
17.1.6	Anticonvulsants	X	X	
17.1.7	Antidepressants	X	X	
17.1.8	Antiparkinsonism drugs		X	
17.1.9	Antihistamines and antiemetics		X	
17.1.10	Antipsychotics	X	X	
17.1.11	Bronchodilators		X	
17.1.12	Carbon monoxide	X	X	
17.1.13	Cardiovascular drugs			
17.1.13.1	Antiarrhythmics	X	X	
17.1.13.1.1	Digitalis	X	X	
17.1.13.2	Antihypertensives	X	X	
17.1.13.3	Beta blockers	X	X	
17.1.13.4	Calcium channel blockers	X	X	
17.1.14	Caustic agents (See 2.2.2.3)			
17.1.14.1	Acid	X	X	
17.1.14.2	Alkali	X	X	
17.1.15	Cocaine (See 14.5.4.5)	X	X	X
17.1.16	Cyanides, hydrogen sulfide	X	X	
17.1.17	Hallucinogens (See 14.5.4.2)		X	X
17.1.18	Hazardous materials	X	X	
17.1.19	Heavy metals	X	X	
17.1.20	Herbicides, insecticides, and rodenticides	X	X	
17.1.21	Household/Industrial chemicals	X	X	X
17.1.22	Hormones/Steroids		X	X
17.1.23	Hydrocarbons	X	X	
17.1.24	Hypoglycemics/Insulin	X	X	
17.1.25	Inhaled toxins	X	X	
17.1.26	Iron	X	X	
17.1.27	Isoniazid	X	X	
17.1.28	Marine toxins (See 6.1.3)	X	X	X
17.1.29	Methemoglobinemia (See 8.5.3)	X	X	
17.1.30	Mushrooms/Poisonous plants	X	X	

17.1.31	Neuroleptics	X	X	
17.1.32	Non-prescription drugs		X	X
17.1.33	Organophosphates	X	X	
17.1.34	Recreational drugs	X	X	X
17.1.35	Sedatives/Hypnotics (See 14.5.4.4)	X	X	
17.1.36	Stimulants/Sympathomimetics (See 14.5.4.5)	X	X	
17.1.37	Strychnine	X	X	
17.1.38	Lithium	X	X	X
17.1.39	Nutritional supplements		X	X
17.1.40	Chemical warfare agents	X	X	X
17.1.41	Antibiotics		X	X
17.1.42	Antiretrovirals		X	X

18.0 **TRAUMATIC DISORDERS**

		Critical	Emergent	Lower Acuity
18.1	**Trauma**			
18.1.1	Abdominal trauma			
18.1.1.1	Diaphragm	X	X	
18.1.1.2	Hollow viscus	X	X	
18.1.1.3	Penetrating	X	X	
18.1.1.4	Retroperitoneum	X	X	
18.1.1.5	Solid organ	X	X	
18.1.1.6	Vascular	X	X	
18.1.2	Chest trauma			
18.1.2.1	Aortic dissection/Disruption	X		
18.1.2.2	Contusion			
18.1.2.2.1	Cardiac	X	X	X
18.1.2.2.2	Pulmonary	X	X	
18.1.2.3	Fracture			
18.1.2.3.1	Clavicle		X	X
18.1.2.3.2	Ribs/Flail chest	X	X	X
18.1.2.3.3	Sternum		X	X
18.1.2.4	Hemothorax	X	X	
18.1.2.5	Penetrating chest trauma	X	X	
18.1.2.6	Pericardial tamponade (See 3.6.1)	X		
18.1.2.7	Pneumothorax (See 16.2.6)			
18.1.2.7.1	Simple		X	
18.1.2.7.2	Tension	X		
18.1.2.7.3	Open	X		
18.1.3	Cutaneous injuries			
18.1.3.1	Avulsions		X	X
18.1.3.2	Bite wounds (See 6.1)		X	X
18.1.3.3	Burns			
18.1.3.3.1	Electrical (See 6.3)	X	X	X
18.1.3.3.2	Chemical (See 16.5.2)	X	X	X
18.1.3.3.3	Thermal	X	X	X
18.1.3.4	Lacerations		X	X
18.1.3.5	Puncture wounds		X	X
18.1.4	Facial fractures			X
18.1.4.1	Dental		X	X
18.1.4.2	Le Fort	X	X	X
18.1.4.3	Mandibular		X	X
18.1.4.4	Orbital		X	X
18.1.4.5	Nasal			X
18.1.4.5.1	Septal hematoma		X	
18.1.4.6	Zygomatic arch			X
18.1.5	Genitourinary trauma			
18.1.5.1	Bladder		X	
18.1.5.2	External genitalia		X	
18.1.5.3	Renal		X	X
18.1.5.4	Ureteral		X	
18.1.5.5	Urethral		X	X
18.1.6	Head trauma			

	18.1.6.1 Intracranial injury	X	X	
	18.1.6.2 Scalp lacerations/Avulsions		X	X
	18.1.6.3 Skull fractures		X	X
18.1.7	Injuries of the spine			
	18.1.7.1 Dislocations/Subluxations	X	X	
	18.1.7.2 Fractures	X	X	X
	18.1.7.3 Sprains/Strains			X
18.1.8	Extremity bony trauma			
	18.1.8.1 Dislocations/Subluxations		X	
	18.1.8.2 Fractures (open and closed)		X	X
18.1.9	Neck trauma			
	18.1.9.1 Laryngotracheal injuries	X	X	
	18.1.9.2 Penetrating neck trauma	X	X	
	18.1.9.3 Vascular injuries			
	18.1.9.3.1 Carotid artery	X	X	
	18.1.9.3.2 Jugular vein	X	X	
	18.1.9.4 Strangulation	X	X	X
18.1.10	Ophthalmologic trauma			
	18.1.10.1 Corneal abrasions/Lacerations (See 7.2.1.4)		X	X
	18.1.10.2 Corneal burns (See 7.2.1.2)			
	18.1.10.2.1 Acid		X	
	18.1.10.2.2 Alkali		X	
	18.1.10.2.3 Ultraviolet		X	X
	18.1.10.3 Eyelid lacerations		X	
	18.1.10.4 Foreign body (See 19.4.4.8)		X	
	18.1.10.5 Hyphema (See 7.2.2.2)		X	
	18.1.10.6 Lacrimal duct injuries		X	
	18.1.10.7 Penetrating globe injuries		X	
	18.1.10.8 Retinal detachments (See 7.2.3.4)		X	
	18.1.10.9 Traumatic iritis (See 7.2.2.3)		X	X
	18.1.10.10 Retrobulbar hematoma		X	
18.1.11	Otologic trauma			
	18.1.11.1 Hematoma		X	X
	18.1.11.2 Perforated tympanic membrane (See 7.1.7)			X
18.1.12	Pediatric fractures			
	18.1.12.1 Epiphyseal		X	X
	18.1.12.1.1 Salter-Harris classification		X	X
	18.1.12.2 Greenstick		X	
	18.1.12.3 Torus			X
18.1.13	Pelvic fracture	X	X	
18.1.14	Soft-tissue extremity injuries			
	18.1.14.1 Amputations/Replantation		X	
	18.1.14.2 Compartment syndromes		X	
	18.1.14.3 High-pressure injection		X	
	18.1.14.4 Injuries to joints		X	X
	18.1.14.5 Penetrating trauma		X	X
	18.1.14.6 Periarticular			X
	18.1.14.7 Sprains/Strains			X
	18.1.14.8 Tendon injuries			
	18.1.14.8.1 Lacerations/Transections		X	
	18.1.14.8.2 Ruptures		X	

		18.1.14.8.2.1 Achilles tendon		X	
		18.1.14.8.2.2 Patellar tendon		X	
	18.1.14.9 Vascular injuries		X	X	
18.1.15	Spinal cord and nervous system trauma				
	18.1.15.1 Cauda equina syndrome (See 12.2.3.1)		X	X	
	18.1.15.2 Injury to nerve roots			X	X
	18.1.15.3 Peripheral nerve injury			X	X
	18.1.15.4 Spinal cord injury		X	X	
		18.1.15.4.1 Spinal cord injury without radiologic abnormality (SCIWORA)		X	
18.2	**Trauma in Pregnancy**				
18.2.1	Abruptio placentae (See 13.3.4.1)		X	X	
18.2.2	Perimortem C-section (See 19.4.8.2)		X		
18.2.3	Premature labor (See 13.6.2)			X	
18.2.4	Rupture of uterus (See 13.6.4)		X		
18.3	**Multi-system Trauma**		X	X	
18.3.1	Blast injury		X	X	

19.0 PROCEDURES AND SKILLS INTEGRAL TO THE PRACTICE OF EMERGENCY MEDICINE

19.1 **Airway Techniques**
- 19.1.1 Intubation
- 19.1.2 Airway adjuncts
- 19.1.3 Surgical airway
- 19.1.4 Mechanical ventilation
- 19.1.5 Non-invasive ventilatory management
- 19.1.6 Ventilatory monitoring

19.2 **Resuscitation**
- 19.2.1 Cardiopulmonary resuscitation
- 19.2.2 Neonatal resuscitation
- 19.2.3 Pediatric resuscitation
- 19.2.4 Post-resuscitative care
- 19.2.5 Blood, fluid, and component therapy
- 19.2.6 Arterial catheter insertion
- 19.2.7 Central venous access
- 19.2.8 Intraosseous infusion
- 19.2.9 Defibrillation
- 19.2.10 Thoracotomy

19.3 **Anesthesia and Acute Pain Management**
- 19.3.1 Local anesthesia
- 19.3.2 Regional nerve block
- 19.3.3 Procedural sedation and analgesia

19.4 **Diagnostic and Therapeutic Procedures**
- 19.4.1 Abdominal and gastrointestinal
  - 19.4.1.1 Anoscopy
  - 19.4.1.2 Excision of thrombosed hemorrhoid
  - 19.4.1.3 Gastric lavage
  - 19.4.1.4 Gastrostomy tube replacement
  - 19.4.1.5 Nasogastric tube
  - 19.4.1.6 Paracentesis
- 19.4.2 Cardiovascular and Thoracic
  - 19.4.2.1 Cardiac pacing
  - 19.4.2.2 Cardioversion
  - 19.4.2.3 ECG interpretation
  - 19.4.2.4 Pericardiocentesis
  - 19.4.2.5 Thoracentesis
  - 19.4.2.6 Thoracostomy
- 19.4.3 Cutaneous
  - 19.4.3.1 Escharotomy
  - 19.4.3.2 Incision and drainage
  - 19.4.3.3 Trephination, nails
  - 19.4.3.4 Wound closure techniques
  - 19.4.3.5 Wound management
- 19.4.4 Head, ear, eye, nose, and throat

- 19.4.4.1 Control of epistaxis
- 19.4.4.2 Drainage of peritonsillar abscess
- 19.4.4.3 Laryngoscopy
- 19.4.4.4 Lateral canthotomy
- 19.4.4.5 Slit lamp examination
- 19.4.4.6 Tonometry
- 19.4.4.7 Tooth stabilization
- 19.4.4.8 Corneal foreign body removal (See 18.1.10.4)
- 19.4.4.9 Drainage of hematoma

19.4.5 Systemic infectious
- 19.4.5.1 Personal protection (equipment and techniques)
- 19.4.5.2 Universal precautions and exposure management

19.4.6 Musculoskeletal
- 19.4.6.1 Arthrocentesis
- 19.4.6.2 Compartment pressure measurement
- 19.4.6.3 Fracture/Dislocation immobilization techniques
- 19.4.6.4 Fracture/Dislocation reduction techniques
- 19.4.6.5 Spine immobilization techniques
- 19.4.6.6 Fasciotomy

19.4.7 Nervous system
- 19.4.7.1 Lumbar puncture

19.4.8 Obstetrics and gynecology
- 19.4.8.1 Delivery of newborn
- 19.4.8.2 Perimortem c-section (See 18.2.2)
- 19.4.8.3 Sexual assault examination

19.4.9 Psychobehavioral
- 19.4.9.1 Psychiatric screening examination
- 19.4.9.2 Violent patient management/Restraint

19.4.10 Renal and urogenital
- 19.4.10.1 Bladder catheterization
  - 19.4.10.1.1 Urethral catheter
  - 19.4.10.1.2 Suprapubic catheter
- 19.4.10.2 Cystourethrogram
- 19.4.10.3 Testicular detorsion

19.4.11 Toxicologic
- 19.4.11.1 Decontamination

19.5 **Other Diagnostic and Therapeutic Procedures**
- 19.5.1 Foreign body removal
- 19.5.2 Collection and handling of forensic material
- 19.5.3 Ultrasound
  - 19.5.3.1 Diagnostic
  - 19.5.3.2 Procedural

20.0 OTHER CORE COMPETENCIES OF THE PRACTICE OF EMERGENCY MEDICINE

20.1 **Interpersonal and Communication Skills**
- 20.1.1 Interpersonal skills
  - 20.1.1.1 Inter-departmental and medical staff relations
  - 20.1.1.2 Intra-departmental relations, teamwork, and collaboration skills

- 20.1.1.3 Patient and family experience of care
- 20.1.2 Communication skills
  - 20.1.2.1 Complaint management and service recovery
  - 20.1.2.2 Conflict management
  - 20.1.2.3 Crisis resource management
  - 20.1.2.4 Delivering bad news
  - 20.1.2.5 Multicultural approach to the ED patient
  - 20.1.2.6 Negotiation skills

20.2 **Practice-based Learning and Improvement**
- 20.2.1 Performance improvement and lifelong learning
  - 20.2.1.1 Evidence-based medicine
  - 20.2.1.2 Interpretation of medical literature
  - 20.2.1.3 Knowledge translation
  - 20.2.1.4 Patient safety and medical errors
  - 20.2.1.5 Performance evaluation and feedback
  - 20.2.1.6 Research
- 20.2.2 Practice guidelines
- 20.2.3 Education
  - 20.2.3.1 Patient and family
  - 20.2.3.2 Provider
- 20.2.4 Principles of quality improvement

20.3 **Professionalism**
- 20.3.1 Advocacy
  - 20.3.1.1 Patient
  - 20.3.1.2 Professional
- 20.3.2 Ethical principles
  - 20.3.2.1 Conflicts of interest
  - 20.3.2.2 Diversity awareness
  - 20.3.2.3 Electronic communications/Social media
  - 20.3.2.4 Medical ethics
- 20.3.3 Leadership and management principles
- 20.3.4 Well-being
  - 20.3.4.1 Fatigue and impairment
  - 20.3.4.2 Time management/Organizational skills
  - 20.3.4.3 Work/Life balance
  - 20.3.4.4 Work dysphoria (burn-out)

20.4 **Systems-based Practice**
- 20.4.1 Clinical informatics
  - 20.4.1.1 Computerized order entry
  - 20.4.1.2 Clinical decision support
  - 20.4.1.3 Electronic health record
  - 20.4.1.4 Health information integration
- 20.4.2 ED Administration
  - 20.4.2.1 Contracts and practice models
  - 20.4.2.2 Patient flow and throughput
    - 20.4.2.2.1 Patient triage and classification
    - 20.4.2.2.2 Hospital crowding and diversion
    - 20.4.2.2.3 Observation and rapid treatment units

- 20.4.2.3 Financial principles
  - 20.4.2.3.1 Billing and coding
  - 20.4.2.3.2 Cost-effective care and resource utilization
  - 20.4.2.3.3 Reimbursement issues
- 20.4.2.4 Human resource management
  - 20.4.2.4.1 Allied health professionals
  - 20.4.2.4.2 Recruitment, credentialing, and orientation

20.4.3 ED operations
- 20.4.3.1 Policies and procedures
- 20.4.3.2 ED data acquisition and operational metrics
- 20.4.3.3 Safety, security, and violence in the ED

20.4.4 Health care coordination
- 20.4.4.1 End-of-life and palliative care/Advance directives
- 20.4.4.2 Placement options
- 20.4.4.3 Outpatient services

20.4.5 Regulatory/Legal
- 20.4.5.1 Accreditation
- 20.4.5.2 Compliance and reporting requirements
- 20.4.5.3 Confidentiality and HIPAA
- 20.4.5.4 Consent, capacity, and refusal of care
- 20.4.5.5 Emergency Medical Treatment and Active Labor Act (EMTALA)
- 20.4.5.6 External quality metrics

20.4.6 Risk management
- 20.4.6.1 Liability and litigation
- 20.4.6.2 Professional liability insurance
- 20.4.6.3 Risk mitigation

20.4.7 Evolving trends in health care delivery
- 20.4.7.1 Public policy

20.4.8 Regionalization of emergency care

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