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Original Contributions

THE 2019 MODEL OF THE CLINICAL PRACTICE OF EMERGENCY MEDICINE

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Emergency Medicine has a scientifically derived and commonly accepted description of the domain of its clinical practice. That document, *The Model of the Clinical Practice of Emergency Medicine* (EM Model), was developed through the collaboration of six organizations: the American Board of Emergency Medicine (ABEM), the administrative organization for the project, the American College of Emergency Physicians (ACEP), the Council of Emergency Medicine Residency Directors (CORD), the Emergency Medicine Residents' Association (EMRA), the Residency Review Committee for Emergency Medicine (RRC-EM), and the Society for Academic Emergency Medicine (SAEM). Development of the EM Model was based on an extensive practice analysis of

the specialty. The practice analysis relied on both empiric data gathered from actual emergency department visits and several expert panels (1). The resulting product was first published in 2001, and has successfully served as the common source document for all emergency medicine organizations (2,3). One of its strengths is incorporating the reality that emergency medicine is a specialty driven by symptoms not diagnoses, requiring simultaneous therapeutic and diagnostic interventions.

The task force that developed the EM Model recommended that a new task force, composed of representatives from all six organizations, be formed every 2 years to assess the success of the document in accomplishing its objective of supporting the ongoing development of the specialty of emergency medicine; to consider alterations to the EM Model suggested by the collaborating organizations; and to recommend changes to the six sponsoring organizations.

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Table 1. Matrix of Physician Tasks by Patient Acuity

Physician Tasks	Patient Acuity		
	Critical	Emergent	Lower Acuity
Prehospital 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			
Transitions of care			
Prevention and education			
Documentation			
Task switching/ Multiple patient care			
Team management			
Mass casualty/ Disaster management			
Patient-centered communication skills			
Prognosis			

The initial 2-year review occurred in 2003, with representatives from each of the six organizations suggesting changes and reporting how their respective organizations had used the document. The initial 2-year update was published in *Annals of Emergency Medicine* and *Academic Emergency Medicine* in 2005 (4,5). Subsequently, a task force met every 2 years to review the EM Model and recommend changes (6–13). In 2013, a seventh organization, the American Academy of Emergency Medicine (AAEM), was added as a collaborating organization. In 2014, the collaborating organizations made the decision to review the EM Model on a 3-year review cycle, beginning in 2016. The 2016 update was published in *Journal of Emergency Medicine* in 2017 (14). In 2019, the AAAEM Resident and Student Association was added as an eighth collaborating organization.

This article provides a brief review of the original EM Model, along with the changes to the EM Model as rec-

ommended by the 2019 EM Model Review Task Force. Significant changes occurred with the 2019 review, including the addition of oncologic emergencies in the newly renamed “Category 8, Hematologic and Oncologic Disorders.” A summary of all 2019 changes and an update on current uses of the EM Model by the seven collaborating EM organizations are also included in this article.

THE EM MODEL

The EM Model is a three-dimensional description of EM clinical practice. The three dimensions are patient acuity; physician tasks; and a listing of medical knowledge, patient care, and procedural skills. All of these dimensions are interrelated and used concurrently by a physician when providing patient care. The emergency 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 in collecting information. Through this process, the physician is able to select the possible etiologies of the patient’s problem from the listing of medical knowledge, patient care, and procedural skills. Through simultaneous application of all three components, the physician is able to determine the most probable diagnosis and implement a treatment plan for the patient. The three dimensions, as revised in 2019, are included in Tables 1–4.

The Accreditation Council for Graduate Medical Education (ACGME) requires each specialty to develop outcomes-based milestones for resident performance within the six general (core) competencies (i.e., patient care, medical knowledge, practice-based learning and improvement, interpersonal skills, professionalism, and system-based practice). The six general competencies are an integral part of the practice of emergency medicine and are embedded in the EM Model (15,16). The EM Model is closely aligned with the general competencies, using section headings with similar terminology.

The EM Model is designed for use as the core document for the specialty. It provides the foundation for developing medical school and residency curricula; certification examination specifications; continuing education objectives; research agendas; residency program

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

Physician Task	Definition
Prehospital care	Participate actively in prehospital care; provide direct patient care or on-line or off-line medical direction or interact with prehospital medical providers; assimilate information from prehospital 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	Effectively 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 examination.
Modifying factors	Recognize age, gender, ethnicity, barriers to communication, socioeconomic status, underlying disease, gender identity, sexual orientation, 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 emergency medicine.
Diagnostic studies	Select and perform the most appropriate diagnostic studies and interpret the results, e.g., electrocardiogram, emergency ultrasound, and radiographic and laboratory tests.
Diagnosis	Develop a differential diagnosis and establish the most likely diagnosis in light of the history, physical, interventions, and test results.
Therapeutic interventions	Perform procedures and nonpharmacologic therapies, and counsel.
Pharmacotherapy	Select, prescribe, and be aware of adverse effects of appropriate pharmaceutical agents based on relevant considerations such as intended effect, financial considerations, possible adverse effects, patient preferences, institutional policies, and clinical guidelines; monitor and intervene in the event of adverse effects in the emergency department.
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 workups.
Consultation	Collaborate with physicians and other professionals to help guide optimal management of patients.
Transitions of care	Arrange for patient admission, discharge (including follow-up plan), observation, or transfer and transitions of care as appropriate, and communicate these arrangements effectively with patients, family, and involved health care team members.
Prevention and education	Apply epidemiologic information to patients at risk; conduct patient education; select appropriate disease and injury prevention, and harm reduction techniques.
Documentation	Communicate patient care information in a concise and appropriate manner that facilitates quality care. This includes documentation and medical decision-making variables related to billing, coding, and reimbursement for patient care.
Task switching/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.
Patient-centered communication skills	Establish rapport with and demonstrate empathy toward patients and their families; listen effectively to patients and their families. Identify situations that require individualized communication, such as goals of care, end of life care, and palliative options.
Prognosis	Forecast the likely outcome of a medical disease or traumatic condition.

review requirements; and other documents necessary for the definition, skills acquisition, assessment, and practice of the specialty. In conjunction with the EM Model, these six 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. The six competencies and the EM Model also form the core of ABEM's continuing certification process. For further information on this process see ABEM's website (www.abem.org/).

CHANGES IN THE EM MODEL

The 2019 EM Model Review Task Force met to consider changes based on input received from the seven collaborating organizations. Each organization was asked to comment on how it uses the EM Model, identify changes in practice or updated evidence, and recommend changes in the document that would address any deficiencies. The changes recommended by the 2019 EM Model Review Task Force and accepted by the seven organizations can be found in the [Appendix](#).

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

1.0 SIGNS, SYMPTOMS, AND PRESENTATIONS			
	Critical	Emergent	Lower Acuity
1.1 Abnormal Vital Signs			
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 Bradypnea/Apnea	X	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 and genital pain	X	X	X
1.2.7 Back pain	X	X	X
1.2.8 Chronic pain			X
1.2.9 Extremity pain	X	X	X
1.2.10 Neck pain	X	X	X
1.3 General			
1.3.1 Altered mental status	X	X	X
1.3.2 Anuria/Oliguria		X	
1.3.3 Ascites		X	X
1.3.4 Ataxia		X	X
1.3.5 Auditory disturbances			X
1.3.6 Bleeding	X	X	X
1.3.7 Congestion/Rhinorrhea			X
1.3.8 Constipation/Obstipation		X	X
1.3.9 Cough		X	X
1.3.10 Crying/Fussiness		X	X
1.3.11 Cyanosis	X		
1.3.12 Dehydration	X	X	
1.3.13 Diarrhea		X	X
1.3.14 Dysmenorrhea			X
1.3.15 Dysphagia		X	X
1.3.16 Dysuria			X
1.3.17 Edema		X	X
1.3.18 Failure to thrive		X	X
1.3.19 Fatigue/Malaise		X	X
1.3.20 Feeding problems			X
1.3.21 Hematemesis	X	X	
1.3.22 Hematuria		X	X
1.3.23 Hemoptysis	X	X	
1.3.24 Hiccup			X
1.3.25 Jaundice		X	
1.3.26 Joint swelling		X	X
1.3.27 Lethargy	X	X	X
1.3.28 Lightheadedness/Dizziness		X	X
1.3.29 Limp		X	X
1.3.30 Lymphadenopathy			X
1.3.31 Mechanical and indwelling devices, complications	X	X	X
1.3.32 Nausea/Vomiting		X	X
1.3.33 Occupational exposure		X	X
1.3.34 Palpitations	X	X	X
1.3.35 Paralysis	X	X	
1.3.36 Paresthesia/Dysesthesia		X	X
1.3.37 Poisoning	X	X	X
1.3.38 Pruritus		X	X
1.3.39 Rash	X	X	X
1.3.40 Rectal bleeding	X	X	X
1.3.41 Shock	X		

(Continued)

Table 4. Continued

1.0 SIGNS, SYMPTOMS, AND PRESENTATIONS			
	Critical	Emergent	Lower Acuity
1.3.42	X	X	
1.3.43		X	X
1.3.44	X	X	
1.3.45	X	X	X
1.3.46			X
1.3.47		X	X
1.3.48			X
1.3.49		X	
1.3.50	X	X	X
1.3.51			X
1.3.52		X	X
1.3.53		X	X
1.3.54	X	X	
1.3.55	X	X	X
1.3.56	X		
1.3.57	X	X	X
1.3.58	X	X	X
1.3.59	X	X	X
1.3.60	X	X	X
2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS			
	Critical	Emergent	Lower Acuity
2.1 Abdominal Wall			
2.1.1 Hernias		X	X
2.1.2 Hematoma			X
2.2 Esophagus			
2.2.1 Infectious disorders			
2.2.1.1 Candida (See 4.4.2.1, 7.4.6)		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 agents (See 17.1.16.1)			
2.2.2.3.1 Acid	X	X	
2.2.2.3.2 Alkali	X	X	
2.2.3 Motor abnormalities			
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 Noninfectious hepatitis/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
2.3.1.4 Nonalcoholic steatohepatitis (NASH)			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		X	
2.3.3.3 Perihepatitis			X
2.3.4 Tumors		X	X
2.3.5 Hepatic encephalopathy	X	X	

(Continued)

Table 4. Continued

2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS		Critical	Emergent	Lower Acuity
2.4 Gallbladder and Biliary Tract				
2.4.1	Cholangitis	X	X	
2.4.2	Cholecystitis	X	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
2.5.3	Pseudocyst			X
2.6 Peritoneum				
2.6.1	Spontaneous bacterial peritonitis	X	X	
2.6.2	Abdominal compartment syndrome	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
2.7.6	Gastroparesis		X	X
2.7.7	Cyclic vomiting syndrome (See 17.1.24.1.1)		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	
2.8.2.2	Gluten enteropathy/Celiac disease		X	
2.8.3	Motor abnormalities			
2.8.3.1	Obstruction	X	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
2.9.2.5	Neutropenic enterocolitis/Typhlitis	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	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

(Continued)

Table 4. Continued

2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS		Critical	Emergent	Lower Acuity
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
2.12 Specific Post-surgical Populations				
2.12.1	Bariatric surgery	X	X	X
2.12.2	Ostomy		X	X
3.0 CARDIOVASCULAR DISORDERS				
		Critical	Emergent	Lower Acuity
3.1 Cardiopulmonary Arrest				
		X		
3.2 Congenital Abnormalities of the Cardiovascular System				
		X	X	X
3.2.1	Tetralogy of Fallot spells	X	X	
3.2.2	Patent ductus arteriosus-dependent congenital heart anomalies	X	X	
3.3 Disorders of Circulation				
3.3.1	Arterial			
3.3.1.1	Aneurysm	X	X	X
3.3.1.2	Dissection	X		
3.3.1.2.1	Aortic	X	X	X
3.3.1.2.2	Non-aortic	X	X	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
3.4.1.3	Pulseless electrical activity	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
3.5.2.2	Dilated	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

(Continued)

Table 4. Continued

3.0 CARDIOVASCULAR DISORDERS			
	Critical	Emergent	Lower Acuity
3.7 Hypertension	X	X	X
3.7.1 Asymptomatic hypertension			X
3.7.2 Hypertensive emergency	X	X	
3.8 Tumors	X	X	
3.9 Valvular Disorders	X	X	X
3.9.1 Endocarditis	X	X	
3.10 Cardiovascular Devices			
3.10.1 Pacemaker/Automatic implantable cardioverter-defibrillator (AICD)	X	X	X
3.10.2 Left ventricular assist device (LVAD)	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
4.2.3 Diabetic foot ulcers		X	X
4.3 Dermatitis			
4.3.1 Atopic/Eczema			X
4.3.2 Contact			X
4.3.3 Psoriasis			X
4.3.4 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, 7.4.6)			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 Herpetic infections (See 10.6.4, 10.6.5, 13.1.3.1)		X	X
4.4.4.4 Human papillomavirus (HPV) (See 13.1.3.2)			X
4.4.4.5 Molluscum contagiosum			X
4.5 Maculopapular Lesions			
4.5.1 Erythema multiforme		X	X
4.5.2 Pityriasis rosea			X
4.5.3 Urticaria		X	X
4.5.4 Drug eruptions		X	X
4.6 Papular/Nodular Lesions			
4.6.1 Hemangioma/Lymphangioma			X
4.6.2 Lipoma			X
4.6.3 Sebaceous cyst			X
4.6.4 Erythema nodosum			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
4.8 Purpuric Rash	X	X	X
4.8.1 Henoch-Schönlein purpura (HSP)		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 Hypervolemia/Hypovolemia	X	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	X	X	X
5.4.1.1 Complications in glucose metabolism			
5.4.1.1.1 Hyperglycemia		X	X
5.4.1.1.2 Diabetic ketoacidosis (DKA)	X	X	X
5.4.1.1.3 Hyperosmolar hyperglycemic state	X	X	
5.4.1.1.4 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
5.5.4 Malnutrition		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
5.8.4 Thyroid storm	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 Arachnids		X	X
6.1.2 Mammals		X	X
6.1.3 Marine organisms (See 17.1.20)	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)			
6.3.1 Lightning	X	X	X
6.4 High-altitude Illness			
6.4.1 Acute mountain sickness		X	X
6.4.2 High-altitude cerebral edema	X	X	
6.4.3 High-altitude pulmonary edema	X	X	
6.5 Submersion Incidents	X	X	X
6.6 Temperature-related Illness			

(Continued)

Table 4. Continued

6.0 ENVIRONMENTAL DISORDERS				
		Critical	Emergent	Lower Acuity
6.6.1	Heat	X	X	X
6.6.2	Cold	X	X	X
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	Burn confined to eye (See 18.1.10.2)		X	
7.2.1.2	Conjunctivitis			X
7.2.1.3	Corneal abrasions (See 18.1.10.1)		X	X
7.2.1.4	Disorders of lacrimal system		X	X
7.2.1.5	Foreign body		X	X
7.2.1.6	Disorders of the eyelids			X
7.2.1.7	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 18.1.10.8)		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 18.1.10.7)		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	Septal/Orbital		X	
7.2.4.2	Endophthalmitis		X	
7.3	Nose			
7.3.1	Epistaxis	X	X	X
7.3.2	Foreign body		X	X
7.3.3	Rhinitis			X
7.3.4	Sinusitis			X
7.4	Oropharynx/Throat			
7.4.1	Dentalgia			X
7.4.2	Diseases of the oral soft tissue			
7.4.2.1	Ludwig's angina	X	X	
7.4.2.2	Stomatitis			X
7.4.2.3	Gingival and periodontal disorders		X	X
7.4.2.4	Odontogenic infections/Abscesses		X	X
7.4.3	Diseases of the salivary glands			
7.4.3.1	Sialolithiasis		X	X
7.4.3.2	Suppurative parotitis		X	
7.4.4	Foreign body	X	X	
7.4.5	Larynx/Trachea			
7.4.5.1	Epiglottitis (See 16.1.1.2)	X	X	

(Continued)

Table 4. Continued

7.0 HEAD, EAR, EYE, NOSE, THROAT DISORDERS			
	Critical	Emergent	Lower Acuity
7.4.5.2 Laryngitis			X
7.4.5.3 Tracheitis		X	X
7.4.5.4 Tracheostomy complications	X	X	X
7.4.6 Oral candidiasis (See 2.2.1.1, 4.4.2.1)			X
7.4.7 Peritonsillar abscess		X	
7.4.8 Pharyngitis/Tonsillitis			X
7.4.9 Retropharyngeal abscess	X	X	
7.4.10 Temporomandibular joint disorders			X
7.5 Tumors	X	X	X
8.0 HEMATOLOGIC AND ONCOLOGIC 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
8.2.1.3 Anticoagulation agents	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
8.2.3.2 Idiopathic thrombocytopenic purpura	X	X	X
8.2.3.3 Thrombotic thrombocytopenic purpura	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 anemia	X	X	X
8.5.1.2.2 Thalassemia		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 17.1.21)	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
8.7 Oncologic Emergencies	X	X	X
8.7.1 Febrile neutropenia	X	X	X
8.7.2 Hypercalcemia of malignancy	X	X	X
8.7.3 Hyperviscosity syndrome	X	X	X
8.7.4 Malignant pericardial effusion	X	X	X
8.7.5 Spinal cord compression (See 12.10)	X	X	
8.7.6 Superior vena cava syndrome	X	X	
8.7.7 Tumor hemorrhage	X	X	X
8.7.8 Tumor lysis syndrome	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 Reactive arthritis (See 11.3.1.6)		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

(Continued)

Table 4. Continued

9.0 IMMUNE SYSTEM DISORDERS			
	Critical	Emergent	Lower Acuity
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 Mucocutaneous lymph node syndrome (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	
9.5 Medication-induced Immunosuppression	X	X	
9.5.1 Chemotherapeutic agents	X	X	
9.5.2 Steroids	X	X	
9.5.3 Targeted immune modulators	X	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 Toxic shock syndrome	X	X	
10.1.8 Spirochetes			
10.1.8.1 Syphilis			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 Anaplasmosis (Ehrlichiosis)		X	
10.5.2 Lyme disease		X	
10.5.3 Rocky Mountain spotted fever		X	
10.5.4 Babesiosis		X	
10.6 Viral		X	X
10.6.1 Infectious mononucleosis		X	X
10.6.2 Influenza/Parainfluenza		X	X
10.6.3 Arbovirus	X	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 4.4.4.3)		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
10.6.10 Measles	X	X	X
10.6.11 Mumps (Paramyxovirus)		X	X
10.7 Emerging Infections/Pandemics	X	X	X
10.8 Drug Resistance	X	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
11.1.4 Atypical fractures		X	X
11.1.4.1 Osteoporotic		X	X
11.1.4.2 Tumor-related		X	X
11.1.4.3 Congenital disorders		X	X
11.2 Disorders of the Spine			
11.2.1 Disc disorders		X	X
11.2.2 Inflammatory/Infectious spondylopathies		X	X
11.2.3 Radiculopathy (See 12.7.3)		X	X
11.2.4 Spinal stenosis		X	X
11.2.5 Cervical pain	X	X	X
11.2.6 Thoracic pain	X	X	X
11.2.7 Lumbosacral pain	X	X	X
11.2.7.1 Cauda equina syndrome (See 18.1.15.1)	X	X	
11.2.7.2 Sacroiliitis			X
11.2.7.3 Sciatica		X	X
11.2.8 Discitis		X	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 Osteoarthritis			X
11.3.1.6 Reactive arthritis (See 9.1.2)		X	X
11.3.2 Developmental dysplasia of the hip		X	X
11.3.3 Slipped capital femoral epiphysis		X	
11.3.4 Synovitis		X	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 Tendinopathy			X
11.5.5 Stress reaction fracture		X	X
11.6 Soft Tissue Infections			
11.6.1 Fasciitis	X	X	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 Tenosynovitis		X	X
12.0 NERVOUS SYSTEM DISORDERS			
	Critical	Emergent	Lower Acuity
12.1 Cranial Nerve Disorders			
12.1.1 Idiopathic facial nerve paralysis (Bell's palsy)			X
12.1.2 Trigeminal neuralgia			X
12.2 Demyelinating Disorders			
12.2.1 Multiple sclerosis	X	X	X
12.3 Headache (See 1.2.2)			
12.3.1 Tension	X	X	X
12.3.2 Vascular		X	X
12.3.3 Cluster		X	X
12.4 Hydrocephalus			
12.4.1 Normal pressure		X	X
12.4.2 Shunt complications		X	

(Continued)

Table 4. Continued

12.0 NERVOUS SYSTEM DISORDERS			
	Critical	Emergent	Lower Acuity
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	X
12.5.3.3 Fungal	X	X	X
12.5.4 Myelitis		X	
12.5.4.1 Acute flaccid myelitis		X	
12.5.5 Neuritis			X
12.6 Movement Disorders			
12.6.1 Dystonic reaction		X	X
12.6.2 Chorea/Choreiform		X	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 (See 11.2.3)		X	
12.8 Other Conditions of the Brain			
12.8.1 Dementia (See 14.5.2)			X
12.8.2 Parkinson's disease			X
12.8.3 Idiopathic intracranial hypertension	X	X	
12.8.4 Cerebral venous sinus thrombosis	X	X	X
12.8.5 Posterior reversible encephalopathy syndrome (PRES)	X	X	
12.8.6 Transient global amnesia			X
12.9 Seizure Disorders			
12.9.1 Epileptiform	X	X	X
12.9.1.1 Neonatal	X	X	
12.9.1.2 Febrile	X	X	X
12.9.1.3 Status epilepticus	X		
12.9.1.4 Nonconvulsive	X	X	
12.9.1.5 Drug-induced	X	X	
12.9.2 Nonepileptiform			X
12.10 Spinal Cord Compression (See 8.7.5)	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	X
12.14 Delirium	X	X	X
12.14.1 Excited delirium syndrome	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
13.1.2.3 Gangrene of perineum	X	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 4.4.4.4)			X

(Continued)

Table 4. Continued

13.0 OBSTETRICS AND GYNECOLOGY			
	Critical	Emergent	Lower Acuity
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 Abnormal 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
13.4.2 Pre-existing medical problems	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		
13.7.4 Amniotic fluid embolism	X	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 Substance Use Disorders			
14.1.1 Alcohol use disorder (See 17.1.1)	X	X	X
14.1.2 Illicit drug use	X	X	X
14.1.3 Prescription drug use	X	X	X
14.1.3.1 Drug diversion			X

(Continued)

Table 4. Continued

14.0 PSYCHOBEHAVIORAL DISORDERS			
	Critical	Emergent	Lower Acuity
14.1.4 Tobacco use disorder			X
14.1.5 Withdrawal syndromes	X	X	X
14.1.6 Opioid use disorder (17.1.2.3)	X	X	X
14.1.7 Stimulant use disorder	X	X	X
14.1.8 Medication-assisted treatment (MAT)		X	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		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 Dementia (See 12.8.1)			X
14.6 Patterns of Violence/Abuse/Neglect			
14.6.1 Interpersonal violence			
14.6.1.1 Child	X	X	X
14.6.1.2 Intimate partner	X	X	X
14.6.1.3 Elder	X	X	X
14.6.2 Homicidal Risk	X	X	
14.6.3 Sexual assault		X	
14.6.4 Staff/Patient safety		X	
14.6.5 Human trafficking		X	X
14.7 Personality Disorders			X
14.8 Psychosomatic Disorders			
14.8.1 Hypochondriasis			X
14.8.2 Hysteria/Conversion			X
14.9 Feeding and Eating Disorders	X	X	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 Dialysis	X	X	
15.2.1 Vascular	X	X	X
15.2.2 Peritoneal	X	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	
15.4.3 Asymptomatic bacteriuria			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 perineum (Fournier's gangrene)	X	X	
15.5.3.4 Prostatitis		X	X
15.5.3.5 Urethritis			X

(Continued)

Table 4. Continued

15.0 RENAL AND UROGENITAL DISORDERS			
	Critical	Emergent	Lower Acuity
15.5.4 Structural			
15.5.4.1 Paraphimosis/Phimosis		X	
15.5.4.2 Priapism		X	
15.5.4.2.1 Medication induced		X	X
15.5.4.3 Prostatic hypertrophy (BPH)			X
15.5.4.4 Torsion		X	
15.5.5 Testicular masses			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	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 7.4.5.1)	X	X	
16.1.2 Obstruction/Foreign body (See 16.4.7)	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 Acute Respiratory Distress Syndrome	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 (See 16.1.2)	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	X
16.6.2.1 Massive and submassive embolism	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 Hospital-acquired pneumonia	X	X	X
16.7.2.4 Pneumocystis	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

(Continued)

Table 4. Continued

16.0 THORACIC-RESPIRATORY DISORDERS			
	Critical	Emergent	Lower Acuity
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 Alcohol (See 14.1.1)			
17.1.1.1 Ethanol	X	X	X
17.1.1.2 Ethylene glycol	X	X	
17.1.1.3 Isopropyl	X	X	X
17.1.1.4 Methanol	X	X	
17.1.2 Analgesics			
17.1.2.1 Acetaminophen	X	X	
17.1.2.2 Nonsteroidal anti-inflammatories (NSAIDs)		X	X
17.1.2.3 Opioids (See 14.1.6)	X	X	
17.1.2.4 Salicylates	X	X	
17.1.3 Anticholinergics	X	X	
17.1.3.1 Antihistamines		X	
17.1.4 Anticoagulants/Antithrombotics/Antiplatelets	X	X	
17.1.4.1 Direct thrombin inhibitors	X		
17.1.4.2 Factor Xa inhibitors	X		
17.1.4.3 Heparins	X	X	
17.1.4.4 Vitamin K antagonists	X		X
17.1.5 Anticonvulsants	X	X	
17.1.6 Antidepressants	X	X	
17.1.6.1 Bupropion		X	
17.1.6.2 Selective serotonin reuptake inhibitors		X	X
17.1.6.3 Tricyclic antidepressants	X	X	
17.1.7 Antiemetics		X	
17.1.8 Antimicrobials			
17.1.8.1 Antibiotics		X	X
17.1.8.1.1 Isoniazid	X	X	
17.1.8.2 Antimalarials	X	X	X
17.1.8.3 Antiretrovirals	X	X	X
17.1.9 Antipsychotics	X	X	
17.1.10 Carbon monoxide	X	X	
17.1.11 Cardiovascular drugs			
17.1.11.1 Antidysrhythmics	X	X	
17.1.11.1.1 Digoxin	X	X	
17.1.11.2 Antihypertensives	X	X	
17.1.11.2.1 Central acting	X	X	
17.1.11.2.2 Peripheral Acting	X	X	
17.1.11.3 Beta blockers	X	X	
17.1.11.4 Calcium channel blockers	X	X	
17.1.12 Cholinergics	X	X	
17.1.12.1 Nerve agents	X	X	
17.1.12.2 Organophosphates	X	X	
17.1.13 Cyanides, hydrogen sulfide	X	X	
17.1.14 Heavy metals	X	X	
17.1.15 Herbicides, insecticides, and rodenticides	X	X	
17.1.16 Household/Industrial chemicals	X	X	X
17.1.16.1 Caustic agents (See 2.2.2.3)	X	X	
17.1.16.2 Hydrocarbons	X	X	
17.1.16.3 Inhaled irritants	X	X	
17.1.17 Hypoglycemics/Insulin	X	X	
17.1.18 Lithium	X	X	X
17.1.19 Local anesthetics	X	X	
17.1.20 Marine toxins (See 6.1.3)	X	X	X

(Continued)

Table 4. Continued

17.0 TOXICOLOGIC DISORDERS			
	Critical	Emergent	Lower Acuity
17.1.21 Methemoglobinemia (See 8.5.3)	X	X	
17.1.22 Mushrooms/Poisonous plants	X	X	
17.1.23 Nutritional supplements		X	X
17.1.23.1 Iron	X	X	
17.1.23.2 Performance enhancing and weight-loss drugs	X	X	X
17.1.24 Recreational drugs	X	X	X
17.1.24.1 Cannabis			X
17.1.24.1.1 Cannabinoid hyperemesis syndrome/Cyclic vomiting (See 2.7.7)			X
17.1.24.2 Synthetic cannabinoids	X	X	X
17.1.24.3 Hallucinogens	X	X	X
17.1.24.4 GHB	X	X	X
17.1.25 Sedatives/Hypnotics	X	X	
17.1.26 Stimulants/Sympathomimetics	X	X	
17.1.26.1 Amphetamines	X	X	
17.1.26.2 Cocaine	X	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 viscous	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	
18.1.1.7 Abdominal wall		X	X
18.1.2 Thoracic 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
18.1.2.3.4 Scapula		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 trauma			
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
18.1.3.6 Nail injuries			X
18.1.4 Facial trauma			X
18.1.4.1 Dental		X	X
18.1.4.2 Le Fort	X	X	X
18.1.4.3 Mandibular		X	X

(Continued)

Table 4. Continued

18.0 TRAUMATIC DISORDERS		Critical	Emergent	Lower Acuity
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	Zygomaticomaxillary complex			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	
	18.1.6.1.1 Concussion		X	X
	18.1.6.1.2 Intracranial hemorrhage	X	X	
18.1.6.2	Scalp lacerations/Avulsions		X	X
18.1.6.3	Skull fractures		X	X
18.1.7	Spine trauma			
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	X	X	
18.1.9.4	Strangulation	X	X	X
18.1.10	Ophthalmologic trauma			
18.1.10.1	Corneal abrasions/Lacerations (See 7.2.1.3)		X	X
18.1.10.2	Corneal burns (See 7.2.1.1)			
	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	Periorbital lacerations		X	
	18.1.10.3.1 Eyelid		X	
	18.1.10.3.2 Lacrimal duct		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	Penetrating globe injuries		X	
18.1.10.7	Retinal detachments (See 7.2.3.4)		X	
18.1.10.8	Traumatic iritis (See 7.2.2.3)		X	X
18.1.10.9	Retrolbulbar 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
18.1.12.4	Apophyseal avulsion			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			

(Continued)

Table 4. Continued

18.0 TRAUMATIC DISORDERS				
		Critical	Emergent	Lower Acuity
	18.1.14.8.1 Lacerations/Transections		X	
	18.1.14.8.2 Ruptures		X	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 11.2.7.1)	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	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 Resuscitative hysterotomy (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	
	18.3.2 Falls	X	X	X
	18.3.3 Motor vehicle collision	X	X	X
	18.3.4 Assault	X	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 Noninvasive 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			
	19.2.4.1 Therapeutic hypothermia (or targeted temperature management)			
	19.2.5 Blood, fluid, and component therapy			
	19.2.6 Arterial catheter insertion			
	19.2.7 Central venous access			
	19.2.8 Intraosseous line placement			
	19.2.9 Defibrillation			
	19.2.10 Thoracotomy			
	19.2.11 Extracorporeal membrane oxygenation (ECMO)			
	19.2.12 Thermoregulation procedures			
19.3	Anesthesia and Acute Pain Management			
	19.3.1 Regional anesthesia			
	19.3.2 Procedural sedation			
	19.3.3 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 Gastrostomy tube replacement			
	19.4.1.4 Nasogastric tube			
	19.4.1.5 Paracentesis			
	19.4.1.6 Mechanical control of upper gastrointestinal bleeding			
	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			

(Continued)

Table 4. Continued

19.0 PROCEDURES AND SKILLS INTEGRAL TO THE PRACTICE OF EMERGENCY MEDICINE	
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	Resuscitative hysterotomy (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
19.4.11.2	Antidote administration
19.5	Ultrasound
19.5.1	Diagnostic ultrasound
19.5.2	Procedural ultrasound
19.6	Other Diagnostic and Therapeutic Procedures
19.6.1	Foreign body removal
19.6.2	Collection and handling of forensic material
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/Death notifications
20.1.2.5	Cultural competency

(Continued)

Table 4. Continued

20.0 OTHER CORE COMPETENCIES OF THE PRACTICE OF EMERGENCY MEDICINE	
	20.1.2.6 Negotiation skills
	20.1.2.7 Management of patient expectations
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	
20.3.1.3 Healthcare disparities	
20.3.2 Ethical principles	
20.3.2.1 Conflicts of interest	
20.3.2.2 Diversity and inclusion awareness	
20.3.2.3 Electronic communications/Social media	
20.3.2.4 Medical ethics	
20.3.2.5 Stewardship of resources	
20.3.2.6 Care of vulnerable populations	
20.3.3 Leadership and management principles	
20.3.4 Well-being and resilience	
20.3.4.1 Fatigue and impairment	
20.3.4.1.1 Sleep hygiene	
20.3.4.2 Time management/Organizational skills	
20.3.4.3 Work/Life balance	
20.3.4.4 Work dysphoria (burn-out)	
20.3.4.5 Job and contract evaluation	
20.3.4.6 Care for the caregiver	
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 exchange and interoperability	
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	
20.4.2.4.3 Staffing/Scheduling	
20.4.2.5 Emergency preparedness	
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	
20.4.3.4 Patient satisfaction	
20.4.4 Health care coordination	
20.4.4.1 Advance directives	

(Continued)

Table 4. Continued

20.0 OTHER CORE COMPETENCIES OF THE PRACTICE OF EMERGENCY MEDICINE	
20.4.4.2	Palliative care
20.4.4.2.1	Patient identification for palliative care
20.4.4.2.2	Withdrawal of support
20.4.4.2.3	Hospice referral
20.4.4.3	Placement options
20.4.4.3.1	Activities of daily living/Functional assessment
20.4.4.4	Outpatient services
20.4.4.5	Organ donation
20.4.5	Regulatory/Legal
20.4.5.1	Accreditation
20.4.5.2	Compliance and reporting requirements
20.4.5.3	Confidentiality and privacy
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
20.4.5.7	Good Samaritan emergency care
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
20.4.6.4	Error disclosure
20.4.6.5	Root cause analysis
20.4.7	Evolving trends in health care delivery
20.4.7.1	Public policy
20.4.7.2	Gender identity and sexual orientation
20.4.7.2.1	Transgender care
20.4.7.3	Social determinants of health
20.4.7.4	Firearm injury prevention
20.4.8	Regionalization of emergency care

ED = emergency department.

CURRENT USES OF THE EM MODEL

AAEM

AAEM uses the EM Model as a reference document to identify topics for annual conference programming.

ABEM

ABEM uses the EM Model to define its examination specifications. Each question or structured case used in any ABEM examination is referenced to the EM Model. Every test and examination that ABEM develops is based on a blueprint derived directly from the EM Model.

ACEP

ACEP uses the EM Model primarily as the basis for its educational activities. In addition, the ACEP Academic Affairs Committee uses the EM Model to align programming with academic educational needs. This information is used to develop a comprehensive list of web-based educational resources that can be incorporated into residency curricula.

CORD and the RRC-EM

The integration of the competencies into the EM Model meets the program requirements of the RRC-EM that the six core competencies are included in residency training. The EM Model is a major tool for CORD and Emergency Medicine program faculty to use when integrating the competencies into the training, residency curricula, and evaluation of residents.

EMRA

EMRA uses the EM Model as a reference document to identify content at risk for testing on the in-training and certification examinations.

SAEM

SAEM uses the EM Model as a reference document to identify topics and plan programming.

In summary, the EM Model is accomplishing the intended purposes for which it was developed. The 2019 review of the EM Model resulted in significant changes and clarifications, including the addition of an

oncology section within Category 8, Hematologic and Oncologic Disorders. Several emergency medicine organizations are using the EM Model to support the ongoing development of the specialty of emergency medicine. The complete updated 2019 EM Model can be found on the websites of each of the eight collaborating organizations.

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SUPPLEMENTARY DATA

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jemermed.2020.03.018>.

REFERENCES

1. Hockberger RS, LaDuca A, Orr NA, et al. Creating the model of a clinical practice: the case of emergency medicine. *Acad Emerg Med* 2003;10:161–8.
2. Core Content Task Force II. The Model of the Clinical Practice of Emergency Medicine. *Ann Emerg Med* 2001;37:745–70.
3. Core Content Task Force II. The Model of the Clinical Practice of Emergency Medicine. *Acad Emerg Med* 2001;8:660–81.
4. Hockberger RS, Binder LS, Chisholm CD, et al. The Model of the Clinical Practice of Emergency Medicine: a 2-year update. *Ann Emerg Med* 2005;45:659–74.
5. Hockberger RS, Binder LS, Chisholm CD, et al. The Model of the Clinical Practice of Emergency Medicine: a 2-year update. *Acad Emerg Med* 2005;12:543–58.
6. Thomas HA, Binder LS, Chapman DM, et al. The 2003 Model of the Clinical Practice of Emergency Medicine: the 2005 update. *Ann Emerg Med* 2006;48:e1–17.
7. Thomas HA, Binder LS, Chapman DM, et al. The 2003 Model of the Clinical Practice of Emergency Medicine: the 2005 update. *Acad Emerg Med* 2006;13:1070–3.
8. Thomas HA, Beeson MS, Binder LS, et al. The 2005 Model of the Clinical Practice of Emergency Medicine: the 2007 update. *Acad Emerg Med* 2008;15:776–9.
9. Thomas HA, Beeson MS, Binder LS, et al. The 2005 Model of the Clinical Practice of Emergency Medicine: the 2007 update. *Ann Emerg Med* 2008;52:e1–17.
10. Perina DG, Beeson MS, Char DM, et al. The 2007 Model of the Clinical Practice of Emergency Medicine: the 2009 update. *Acad Emerg Med* 2011;18:e8–26.
11. Perina DG, Beeson MS, Char DM, et al. The 2007 Model of the Clinical Practice of Emergency Medicine: the 2009 update. *Ann Emerg Med* 2011;57:e1–15.
12. Perina DG, Brunett CP, Caro DA, et al. The 2011 Model of the Clinical Practice of Emergency Medicine. *Acad Emerg Med* 2012;19(7):e19–40.
13. Counselman FL, Borenstein MA, Chisholm CD, et al. The 2013 Model of the Clinical Practice of Emergency Medicine. *Acad Emerg Med* 2014;21:574–98.
14. Counselman FL, Babu K, Edens MA, et al. The 2016 Model of the Clinical Practice of Emergency Medicine. *J Emerg Med* 2017;52:846–9.
15. 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;43:756–9.
16. 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. *Acad Emerg Med* 2004;11:674–85.