



## Education

### The 2022 Model of the Clinical Practice of Emergency Medicine

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#### Overview

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 the following six organizations: American Board of Emergency Medicine (ABEM), which is the administrative organization for the project; American College of Emergency Physicians (ACEP); Council of Emergency Medicine Residency Directors (CORD); Emergency Medicine Residents' Association (EMRA); Residency Review Committee for Emergency Medicine (RC-EM); and 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 empirical data gathered from actual emergency department visits and several expert panels (1). The resulting product was first published in 2001 and has served successfully 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, that require 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.

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 the *Journal of Emergency Medicine* in 2017 (14). In 2019, the American Academy of Emergency Medicine Resident and Student Association (AAEM/RSA) was added as an eighth collaborating organization. The 2019 update was published in the *Journal of Emergency Medicine* in 2020 (15).

On the recommendation of the 2019 EM Model Review Task Force, three working groups were formed in 2021 to focus on ultrasound, cutaneous disorders, and evolving trends in health care. The product of these working groups, along with the results of a job analysis conducted in 2022, helped inform decisions made by the 2022 EM Model Review Task Force related to these areas. Numerous changes occurred with the 2022 review, including expansion of the ultrasound section of Category 19, Procedures and Skills Integral to the Practice of Emergency Medicine. Category 20, Other Core Competencies of the Practice of Emergency Medicine, was significantly revised to provide more clarity regarding patient-centered care. In addition, the task force recommended that a work group be convened to review and recommend updates to the acuity definitions prior to the 2025 EM Model review. This article provides a brief review of the original EM Model, along with the changes to the EM Model recommended by the 2022 EM Model Review Task Force. A summary of all 2022 changes and an update on current uses of the EM Model by the eight 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. When 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 2022, 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 (16,17). 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 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 at [www.abem.org](http://www.abem.org).

### Changes to the EM Model

The 2022 EM Model Review Task Force met to consider changes based on the results of a job analysis conducted in January 2022 and input received from the eight collaborating organizations. Each organization was asked to comment on how it uses the EM Model, identify changes in practice or updated evidence, and to recommend changes in the document that would address any deficiencies. The changes recommended by the 2022 EM Model Review Task Force and accepted by the eight organizations are provided in the Appendix.

### Current Uses of the EM Model

#### AAEM

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

**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			
Physician-led team leadership and management			
Mass casualty/Disaster management			
Interpersonal and patient-centered communication skills			
Prognosis			

**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

**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 RC-EM**

The integration of the competencies into the EM Model meets the program requirements of the RC-EM that the six core competencies are included in residency training. The EM Model is a major tool for CORD and emergency

**Table 3. Physician Task Definitions**

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, race, 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, 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 Pharmacotherapy	Perform procedures and nonpharmacologic therapies, and counsel. 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; and 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.

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**Table 3. (continued)**

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.
Physician-led team leadership and management	Function as team leaders in support of physician-led teams. Provide appropriate supervision of nurse practitioners and physician assistants in team-based care. 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.
Interpersonal and patient-centered communication skills	Establish rapport with and demonstrate empathy toward patients and their families; listen effectively and build trust with patients and their families. Identify situations that require individualized communication or shared decision making, such as goals of care, end-of-life care, and palliative options.
Prognosis	Forecast the likely outcome of a medical disease or traumatic condition.

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

	Critical	Emergent	Lower Acuity
<b>1.0 SIGNS, SYMPTOMS, AND PRESENTATIONS</b>			
<b>1.1 Abnormal Vital Signs</b>			
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
1.1.10 Hyperthermia	X	X	X
<b>1.2 Pain</b>			
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

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
<b>1.3 General</b>			
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 Lightheadedness		X	X
1.3.28 Limp		X	X
1.3.29 Lymphadenopathy			X
1.3.30 Mechanical and indwelling devices, complications	X	X	X
1.3.31 Nausea/Vomiting		X	X
1.3.32 Occupational exposure		X	X
1.3.33 Palpitations	X	X	X
1.3.34 Paralysis	X	X	
1.3.35 Paresthesia/Dysesthesia		X	X
1.3.36 Poisoning	X	X	X
1.3.37 Pruritus		X	X
1.3.38 Rash	X	X	X
1.3.39 Rectal bleeding	X	X	X
1.3.40 Shock	X		
1.3.41 Shortness of breath	X	X	
1.3.42 Sore throat		X	X
1.3.43 Stridor	X	X	
1.3.44 Syncope/Near syncope	X	X	X
1.3.45 Tinnitus			X

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
1.3.46 Tremor		X	X
1.3.47 Urinary incontinence			X
1.3.48 Urinary retention		X	
1.3.49 Vaginal bleeding	X	X	X
1.3.50 Vaginal discharge			X
1.3.51 Visual disturbances		X	X
1.3.52 Weakness		X	X
1.3.53 Wheezing	X	X	
1.3.54 Toxidromes	X	X	X
1.3.55 Sudden unexpected infant death (SUID)	X		
1.3.56 Suicidal ideation	X	X	X
1.3.57 Brief resolved unexplained events (BRUE)	X	X	X
1.3.58 Intoxication syndromes	X	X	X
1.3.59 Postsurgical complications	X	X	X
1.3.60 Agitation	X	X	X
1.3.61 Hypo/Hyperglycemia	X	X	X
<b>2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS</b>			
<b>2.1 Abdominal Wall</b>			
2.1.1 Hernias		X	X
2.1.2 Hematoma			X
<b>2.2 Esophagus</b>			
2.2.1 Infectious disorders			
2.2.1.1 Candida (See 4.4.2.1, 7.4.6)		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			
<b>2.3 Liver</b>			
2.3.1 Noninfectious hepatitis/Cirrhosis			
2.3.1.1 Alcoholic		X	X
2.3.1.2 Biliary obstructive		X	
2.3.1.3 Drug-induced		X	X

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
2.3.1.4 Nonalcoholic steatohepatitis (NASH)			X
2.3.1.5 Toxin-induced hepatitis	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		X	
2.3.4 Tumors		X	X
2.3.5 Hepatic encephalopathy		X	X
<b>2.4 Gall Bladder and Biliary Tract</b>			
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
<b>2.5 Pancreas</b>			
2.5.1 Pancreatitis	X	X	
2.5.2 Tumors		X	X
2.5.3 Pseudocyst			X
<b>2.6 Peritoneum</b>			
2.6.1 Spontaneous bacterial peritonitis	X	X	
2.6.2 Abdominal compartment syndrome	X	X	
<b>2.7 Stomach</b>			
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
<b>2.8 Small Bowel</b>			
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	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

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**Table 4. (continued)**

	Critical	Emergent	Lower Acuity
2.8.6 Vascular insufficiency	X	X	
<b>2.9 Large Bowel</b>			
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	
2.9.2.6 Ischemic 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	X	
2.9.4 Structural disorders			
2.9.4.1 Congenital anomalies		X	X
2.9.4.2 Diverticular disease	X	X	X
2.9.4.3 Intussusception	X	X	
2.9.4.4 Volvulus	X	X	
2.9.4.5 Perforation	X	X	
2.9.5 Tumors		X	X
<b>2.10 Rectum and Anus</b>			
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
<b>2.11 Spleen</b>			
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 complications	X	X	X

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
2.12.2 Ostomy		X	X
<b>3.0 CARDIOVASCULAR DISORDERS</b>			
<b>3.1 Cardiopulmonary Arrest</b>	X		
<b>3.2 Congenital Abnormalities of the Cardiovascular System</b>	X	X	X
3.2.1 Tetralogy of Fallot spells	X	X	
3.2.2 Patent ductus arteriosus-dependent congenital heart anomalies	X	X	
<b>3.3 Disorders of Circulation</b>			
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	
<b>3.4 Disturbances of Cardiac Rhythm</b>			
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
<b>3.5 Diseases of the Myocardium, Acquired</b>			
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
3.5.2.3 Takotsubo	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
<b>3.6 Diseases of the Pericardium</b>			
3.6.1 Pericardial effusion/tamponade (See 18.1.2.6)	X	X	
3.6.2 Pericarditis		X	X
<b>3.7 Hypertension</b>	X	X	X
3.7.1 Asymptomatic hypertension			X
3.7.2 Hypertensive emergency	X	X	
<b>3.8 Tumors</b>	X	X	
<b>3.9 Valvular Disorders</b>	X	X	X

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
3.9.1 Endocarditis	X	X	
3.9.2 Valvular stenosis/insufficiency	X	X	X
<b>3.10 Cardiovascular Devices</b>			
3.10.1 Pacemaker/Automatic implantable cardioverter-defibrillator (AICD) complication	X	X	X
3.10.2 Left ventricular assist device (LVAD)	X	X	X
3.10.3 Extracorporeal membrane oxygenation (ECMO) (See 19.2.11)	X		
<b>4.0 CUTANEOUS DISORDERS</b>			
<b>4.1 Cancers of the Skin</b>			
4.1.1 Basal cell carcinoma			X
4.1.2 Kaposi's sarcoma			X
4.1.3 Melanoma			X
4.1.4 Squamous cell carcinoma			X
<b>4.2 Cutaneous Ulcers</b>			
4.2.1 Decubitus ulcer		X	X
4.2.2 Venous stasis ulcer			X
4.2.3 Diabetic foot ulcers		X	X
4.2.4 Arterial insufficiency ulcer			X
4.2.5 Calciphylaxis			X
<b>4.3 Dermatitis</b>			
4.3.1 Eczema			X
4.3.2 Contact dermatitis			X
4.3.3 Psoriasis			X
4.3.4 Seborrheic dermatitis			X
4.3.5 Diaper dermatitis			X
<b>4.4 Infections</b>			
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/Ecthyma			X
4.4.1.5 Necrotizing infection	X	X	
4.4.1.6 Spirochete/Rickettsia		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 (tinea)			X
4.4.3 Ectoparasites			X
4.4.3.1 Pediculosis			X
4.4.3.2 Scabies			X
4.4.3.3 Bed bugs			X
4.4.4 Viral			
4.4.4.1 Herpetic infections		X	X
4.4.4.1.1 Herpes simplex (See 10.6.4, 13.1.3.1)			X
4.4.4.1.2 Herpes zoster (See 10.6.5)			X

(continued on next page)

Table 4. (continued)

	Critical	Emergent	Lower Acuity
4.4.4.2 Human papillomavirus (HPV) (See 13.1.3.2)			X
4.4.4.3 Molluscum contagiosum			X
4.4.4.4 Hand-foot-mouth disease			X
<b>4.5 Maculopapular Lesions</b>			
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
4.5.4.1 Drug rash with eosinophilia and systemic symptoms syndrome (DRESS)	X	X	X
<b>4.6 Papular/Nodular Lesions</b>			
4.6.1 Hemangioma/Lymphangioma			X
4.6.2 Lipoma			X
4.6.3 Sebaceous cyst			X
4.6.4 Erythema nodosum			X
4.6.5 Hidradenitis suppurativa			X
4.6.6 Lichen planus			X
4.6.7 Pyogenic granuloma			X
<b>4.7 Vesicular/Bullous/Sloughing Conditions or Syndromes</b>			
4.7.1 Pemphigus vulgaris		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
4.7.6 Toxicodendron			X
<b>4.8 Purpuric Rash</b>	X	X	X
4.8.1 Vasculitis		X	X
4.8.1.1 Infectious	X	X	
4.8.1.2 Drug-induced		X	X
4.8.1.3 Autoimmune		X	X
4.8.1.3.1 IgA vasculitis	X		
<b>5.0 ENDOCRINE, METABOLIC, AND NUTRITIONAL DISORDERS</b>			
<b>5.1 Acid base Disturbances</b>			
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	
<b>5.2 Adrenal Disease</b>			
5.2.1 Corticoadrenal insufficiency	X	X	
5.2.2 Cushing's syndrome		X	X
<b>5.3 Fluid and Electrolyte Disturbances</b>			
5.3.1 Calcium metabolism	X	X	X
5.3.2 Hypervolemia/Hypovolemia	X	X	X
5.3.3 Potassium metabolism	X	X	X

(continued on next page)

Table 4. (continued)

	Critical	Emergent	Lower Acuity
5.3.4 Sodium metabolism	X	X	X
5.3.5 Magnesium metabolism		X	X
5.3.6 Phosphorus metabolism		X	X
<b>5.4 Glucose Metabolism</b>			
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
5.4.1.1.2.1 Euglycemic DKA		X	
5.4.1.1.3 Hyperosmolar hyperglycemic state	X	X	
5.4.1.1.4 Hypoglycemia	X	X	
<b>5.5 Nutritional Disorders</b>			
5.5.1 Vitamin deficiencies			X
5.5.2 Wernicke-Korsakoff syndrome		X	
5.5.3 Malnutrition		X	X
<b>5.6 Parathyroid Disease</b>		X	X
<b>5.7 Pituitary Disorders</b>		X	X
5.7.1 Panhypopituitarism		X	
<b>5.8 Thyroid Disorders</b>			
5.8.1 Hyperthyroidism	X	X	X
5.8.1.1 Thyroid storm	X	X	
5.8.2 Hypothyroidism	X	X	X
5.8.2.1 Myxedema coma	X	X	
<b>5.9 Tumors of Endocrine Glands</b>			
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
<b>6.0 ENVIRONMENTAL DISORDERS</b>			
<b>6.1 Bites and Envenomation (See 18.1.3.2)</b>			
6.1.1 Arthropods		X	X
6.1.1.1 Insects			X
6.1.1.1.1 Hymenoptera	X	X	X
6.1.1.1.2 Arachnids	X	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
<b>6.2 Dysbarism</b>			
6.2.1 Air embolism	X	X	
6.2.2 Barotrauma	X	X	X
6.2.3 Decompression syndrome	X	X	
<b>6.3 Electrical Injury (See 18.1.3.3.1)</b>	X	X	X
6.3.1 Lightning	X	X	
<b>6.4 High altitude illness</b>			
6.4.1 Acute mountain sickness		X	X

(continued on next page)

Table 4. (continued)

	Critical	Emergent	Lower Acuity
6.4.2 High altitude cerebral edema	X	X	
6.4.3 High altitude pulmonary edema	X	X	
<b>6.5 Submersion Incidents</b>	X	X	X
<b>6.6 Temperature related Illness</b>			
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	
<b>6.7 Radiation Emergencies</b>	X	X	X
<b>7.0 HEAD, EAR, EYE, NOSE, THROAT DISORDERS</b>			
<b>7.1 Ear</b>			
7.1.1 Foreign body		X	X
7.1.1.1 Impacted cerumen			X
7.1.2 Inner ear disorders			X
7.1.3 Mastoiditis		X	
7.1.4 Otitis externa			X
7.1.4.1 Infective			X
7.1.4.1.1. Malignant		X	
7.1.5 Otitis media		X	X
7.1.6 Perforated tympanic membrane (See 18.1.11.2)			X
<b>7.2 Eye</b>			
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
7.2.1.8 Chemical exposure	X	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 Optic neuritis		X	
7.2.3.2 Papilledema	X	X	
7.2.3.3 Retinal detachments and defects (See 18.1.10.7)		X	
7.2.3.4 Retinal vascular occlusion		X	
7.2.3.5 Vitreous hemorrhage		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	

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**Table 4. (continued)**

	Critical	Emergent	Lower Acuity
7.2.4.2 Endophthalmitis		X	
<b>7.3 Nose</b>			
7.3.1 Epistaxis	X	X	X
7.3.2 Foreign body		X	X
7.3.3 Rhinitis			X
7.3.4 Sinusitis			X
<b>7.4 Oropharynx/Throat</b>			
7.4.1 Dentalgia			X
7.4.2 Diseases of the oral soft tissue			
7.4.2.1 Ludwig's angina (see 16.1.1.3)	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
7.4.2.5 Aphthous ulcers			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	
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 Pharyngitis/Tonsillitis			X
7.4.7.1 Post-tonsillectomy bleeding	X	X	
7.4.7.2 Peritonsillar abscess		X	
7.4.8 Retropharyngeal abscess	X	X	
7.4.9 Temporomandibular joint disorders			X
<b>7.5 Tumors</b>	X	X	X
<b>8.0 HEMATOLOGIC AND ONCOLOGIC DISORDERS</b>			
<b>8.1 Blood Transfusion</b>			
8.1.1 Complications	X	X	
<b>8.2 Hemostatic Disorders</b>			
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
8.2.1.4 Anticoagulation reversal	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	

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
<b>8.3 Lymphomas</b>		X	X
<b>8.4 Pancytopenia</b>	X	X	
<b>8.5 Red Blood Cell Disorders</b>			
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	
<b>8.6 White Blood Cell Disorders</b>			
8.6.1 Leukemia		X	X
8.6.2 Multiple myeloma		X	X
8.6.3 Leukopenia		X	X
<b>8.7 Oncologic Emergencies</b>	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	
8.7.9 Chemotherapy complications	X	X	X
8.7.10 Immunotherapy complications	X	X	X
<b>9.0 IMMUNE SYSTEM DISORDERS</b>			
<b>9.1 Collagen Vascular Disease</b>			
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
<b>9.2 Hypersensitivity</b>			
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
<b>9.3 Transplant related Problems</b>	X	X	X
9.3.1 Immunosuppression		X	X
9.3.2 Rejection	X	X	

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
<b>9.4 Immune Complex Disorders</b>		X	
9.4.1 Kawasaki Disease		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	
<b>9.5 Medication-induced Immunosuppression</b>	X	X	
9.5.1 Chemotherapeutic agents	X	X	
9.5.2 Steroids	X	X	
9.5.3 Targeted immune modulators	X	X	
<b>9.6 Multisystem Inflammatory Syndrome in Children</b>	X	X	X
<b>10.0 SYSTEMIC INFECTIOUS DISORDERS</b>			
<b>10.1 Bacterial</b>			
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 Septic shock	X		
10.1.7.2 Toxic shock syndrome	X	X	
10.1.8 Spirochetes			
10.1.8.1 Syphilis		X	X
10.1.9 Tetanus	X	X	
10.1.10 Scarlet fever		X	X
<b>10.2 Bioterrorism Agents/Diseases</b>	X	X	
10.2.1 Class A agents	X	X	
10.2.2 Other microorganisms, viruses, and toxins	X	X	
<b>10.3 Fungal Infections</b>		X	X
<b>10.4 Protozoan/Parasites</b>			
10.4.1 Malaria		X	
10.4.2 Toxoplasmosis		X	X
<b>10.5 Tick-borne</b>			
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	
10.5.5 Southern tick-associated rash illness (STARI)		X	X

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
<b>10.6 Viral</b>		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 4.4.4.1.1, 13.1.3.1)		X	X
10.6.5 Herpes zoster/Varicella (See 4.4.4.1.2)		X	X
10.6.6 HIV/AIDS	X	X	X
10.6.7 Rabies	X		
10.6.8 Roseola			X
10.6.9 Rubella			X
10.6.10 Measles	X	X	X
10.6.11 Mumps (Paramyxovirus)		X	X
10.6.12 COVID-19 (SARS-CoV2)	X	X	X
10.6.13 Parvovirus (fifth disease)		X	X
<b>10.7 Emerging Infections/Pandemics</b>	X	X	X
10.8 Drug Resistance	X	X	X
<b>11.0 MUSCULOSKELETAL DISORDERS (NONTRAUMATIC)</b>			
<b>11.1 Bony Abnormalities</b>			
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
<b>11.2 Disorders of the Spine</b>			
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
<b>11.3 Joint Abnormalities</b>			
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 idiopathic arthritis			X
11.3.1.5 Osteoarthritis			X
11.3.1.6 Reactive arthritis (See 9.1.2)		X	X

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
11.3.2 Developmental dysplasia of the hip		X	X
11.3.3 Slipped capital femoral epiphysis		X	
11.3.4 Synovitis		X	X
<b>11.4 Muscle Abnormalities</b>			
11.4.1 Myositis			X
11.4.2 Rhabdomyolysis	X	X	
11.4.3 Compartment syndrome (See 18.1.14.2)	X	X	
<b>11.5 Overuse Syndromes</b>			
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
<b>11.6 Soft Tissue Infections</b>			
11.6.1 Necrotizing infections	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
<b>12.0 NERVOUS SYSTEM DISORDERS</b>			
<b>12.1 Cranial Nerve Disorders</b>			X
12.1.1 Idiopathic facial nerve paralysis (Bell's palsy)			X
12.1.2 Trigeminal neuralgia			X
<b>12.2 Demyelinating Disorders</b>	X	X	
12.2.1 Multiple sclerosis		X	X
<b>12.3 Headache</b> (See 1.2.2)	X	X	X
12.3.1 Tension			X
12.3.2 Migraine		X	X
12.3.3 Cluster		X	X
12.3.4 Giant cell arteritis	X	X	
<b>12.4 Hydrocephalus</b>		X	X
12.4.1 Normal pressure		X	X
12.4.2 Shunt complications		X	
<b>12.5 Infections/Inflammatory Disorders</b>			
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 Epidural abscess	X	X	
<b>12.6 Movement Disorders</b>		X	X
12.6.1 Dystonic reaction		X	X

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
12.6.2 Chorea/Choreiform			X
12.6.3 Tardive dyskinesia			X
<b>12.7 Neuromuscular Disorders</b>			
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	
<b>12.8 Other Conditions of the Brain</b>			
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
<b>12.9 Seizure Disorders</b>			
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	
12.9.1.6 Withdrawal	X	X	
12.9.2 Nonepileptic seizure			X
<b>12.10 Spinal Cord Compression</b> (See 8.7.5)	X	X	
<b>12.11 Stroke</b>			
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	
<b>12.12 Transient Cerebral Ischemia</b>		X	X
<b>12.13 Tumors</b>	X	X	X
<b>12.14 Delirium</b>	X	X	X
<b>13.0 OBSTETRICS AND GYNECOLOGY</b>			
<b>13.1 Female Genital Tract</b>			
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			

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
13.1.3.1 Herpes simplex (See 4.4.4.1.1, 10.6.4)			X
13.1.3.2 Human papillomavirus (HPV) (See 4.4.4.2)			X
13.1.3.3 Chancres			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 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
<b>13.2 Normal Pregnancy</b>			X
<b>13.3 Complications of Pregnancy</b>			
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
<b>13.4 High-risk Pregnancy</b>	X	X	
13.4.1 Assisted reproductive therapies	X	X	X
13.4.2 Pre-existing medical problems	X	X	X
<b>13.5 Normal Labor and Delivery</b>		X	X
<b>13.6 Complications of Labor</b>			
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		

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
<b>13.7 Complications of Delivery</b>			
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	
13.7.5 Shoulder dystocia	X	X	
<b>13.8 Postpartum Complications</b>			
13.8.1 Endometritis		X	
13.8.2 Hemorrhage	X	X	
13.8.3 Mastitis		X	X
13.8.4 Pituitary infarction	X	X	
<b>13.9 Contraception</b>		X	X
<b>14.0 PSYCHOBHAVIORAL DISORDERS</b>			
<b>14.1 Substance Use Disorders</b>			
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
14.1.4 Tobacco use disorder			X
14.1.5 Withdrawal syndromes	X	X	X
14.1.6 Opioid use disorder (See 17.1.2.3)	X	X	X
14.1.7 Stimulant use disorder	X	X	X
14.1.8 Medication for substance use disorder		X	X
<b>14.2 Mood Disorders and Thought Disorders</b>			
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
<b>14.3 Factitious Disorders</b>		X	X
<b>14.4 Neurotic Disorders</b>			
14.4.1 Anxiety/Panic			X
14.4.2 Obsessive compulsive			X
14.4.3 Phobic			X
14.4.4 Post-traumatic stress			X
<b>14.5 Organic Psychoses</b>			
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
<b>14.6 Patterns of Violence/Abuse/Neglect</b>			
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 Vulnerable adult	X	X	

(continued on next page)

Table 4. (continued)

	Critical	Emergent	Lower Acuity
14.6.1.4 Elder	X	X	X
14.6.2 Homicidal risk	X	X	
14.6.3 Sexual assault		X	
14.6.3.1 Post-exposure prophylaxis		X	X
14.6.4 Staff/Patient safety		X	
14.6.5 Human trafficking		X	X
<b>14.7 Personality Disorders</b>			X
<b>14.8 Psychosomatic Disorders</b>			
14.8.1 Hypochondriasis			X
14.8.2 Conversion disorder			X
<b>14.9 Feeding and Eating Disorders</b>	X	X	X
<b>15.0 RENAL AND UROGENITAL DISORDERS</b>			
<b>15.1 Acute and Chronic Renal Failure</b>	X	X	X
<b>15.2 Complications of Dialysis</b>	X	X	
15.2.1 Vascular	X	X	X
15.2.2 Peritoneal	X	X	X
<b>15.3 Glomerular Disorders</b>			
15.3.1 Glomerulonephritis (See 9.4.4)		X	X
15.3.2 Nephrotic syndrome		X	X
<b>15.4 Infection</b>			
15.4.1 Cystitis			X
15.4.2 Pyelonephritis		X	
15.4.3 Asymptomatic bacteriuria			X
<b>15.5 Male Genital Tract</b>			
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
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
<b>15.6 Nephritis</b>		X	X
15.6.1 Hemolytic uremic syndrome		X	
<b>15.7 Structural Disorders</b>			
15.7.1 Calculus of urinary tract		X	X

(continued on next page)

Table 4. (continued)

	Critical	Emergent	Lower Acuity
15.7.2 Obstructive uropathy	X	X	
15.7.3 Polycystic kidney disease			X
<b>15.8 Tumors</b>			X
<b>15.9 Urologic Devices</b>			
15.9.1 Nephrostomy tube		X	X
15.9.2 Malfunctioning indwelling catheter		X	X
15.9.3 Ureteral stents		X	X
<b>15.10 Gender Affirming Procedural Complications</b>	X	X	X
<b>16.0 THORACIC-RESPIRATORY DISORDERS</b>			
<b>16.1 Acute Upper Airway Disorders</b>			
16.1.1 Infections			
16.1.1.1 Croup		X	
16.1.1.2 Epiglottitis (See 7.4.5.1)	X	X	
16.1.1.3 Ludwig's angina (See 7.4.2.1)	X	X	
16.1.2 Obstruction/Foreign body (See 16.4.7)	X		
<b>16.2 Disorders of Pleura, Mediastinum, and Chest Wall</b>			
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
<b>16.3 Acute Respiratory Distress Syndrome</b>	X	X	
<b>16.4 Obstructive/Restrictive Lung Disease</b>			
16.4.1 Asthma/Reactive airway disease	X	X	
16.4.2 Bronchitis		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	
16.4.8 Bronchiolitis		X	X
<b>16.5 Physical and Chemical Irritants/Insults</b>			
16.5.1 Pneumoconiosis		X	X
16.5.2 Toxic effects of gases, fumes, vapors (See 18.1.3.3.2)	X	X	X
<b>16.6 Pulmonary Embolism/Infarct</b>			
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	

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**Table 4. (continued)**

	Critical	Emergent	Lower Acuity
<b>16.7 Pulmonary Infections</b>			
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 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
<b>16.8 Tumors</b>			
16.9 Pulmonary Hypertension	X	X	X
<b>17.0 TOXICOLOGIC DISORDERS</b>			
<b>17.1 Drug and Chemical Classes</b>			
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	

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**Table 4. (continued)**

	Critical	Emergent	Lower Acuity
17.1.10 Carbon monoxide	X	X	
17.1.11 Cardiovascular drugs			
17.1.11.1 Antiarrhythmics	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
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
<b>18.0 TRAUMATIC DISORDERS</b>			
<b>18.1 Trauma</b>			
18.1.1 Abdominal trauma			
18.1.1.1 Diaphragm	X	X	

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
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	
18.1.1.7 Abdominal wall		X	X
18.1.2 Thoracic trauma			
18.1.2.1 Blunt aortic injury/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
18.1.3.3.4 Radiation	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
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

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Table 4. (continued)

	Critical	Emergent	Lower Acuity
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	
18.1.6.1.3 Increased intracranial pressure	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 7.2.3.3)		X	
18.1.10.8 Traumatic iritis (See 7.2.2.3)		X	X
18.1.10.9 Retrobulbar hematoma		X	
18.1.11 Otologic trauma			
18.1.11.1 Hematoma		X	X
18.1.11.2 Perforated tympanic membrane (See 7.1.6)			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

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**Table 4. (continued)**

	Critical	Emergent	Lower Acuity
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 (See 11.4.3)		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	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	
<b>18.2 Trauma in Pregnancy</b>			
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		
<b>18.3 Multi-system Trauma</b>	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
<b>19.0 PROCEDURES AND SKILLS INTEGRAL TO THE PRACTICE OF EMERGENCY MEDICINE</b>			
<b>19.1 Airway Techniques</b>			
19.1.1 Intubation			
19.1.1.1 Direct laryngoscopy			
19.1.1.2 Video-assisted laryngoscopy			
19.1.2 Airway adjuncts			
19.1.2.1 Flexible endoscopic techniques			
19.1.3 Surgical airway			
19.1.4 Mechanical ventilation			
19.1.5 Non-invasive ventilatory management			
19.1.5.1 CPAP/BiPAP			
19.1.5.2 High flow oxygen			
19.1.6 Ventilatory monitoring			

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**Table 4. (continued)****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 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)
  - (See 3.10.3)
- 19.2.12 Thermoregulation procedures
- 19.2.13 Neurocritical care resuscitation

**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 (including small bore catheters)
- 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

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**Table 4. (continued)**

- 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
- 19.4.7 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 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 Ultrasound physics, artifacts, knobology, and safety (ALARA)
- 19.5.2 Diagnostic ultrasound
  - 19.5.2.1 Aorta
    - 19.5.2.1.1 Abdominal aortic aneurysm
  - 19.5.2.2 Biliary
    - 19.5.2.2.1 Cholelithiasis
    - 19.5.2.2.2 Cholecystitis

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**Table 4. (continued)**

- 19.5.2.3 Bowel
  - 19.5.2.3.1 Peritoneal fluid assessment
  - 19.5.2.3.2 Small bowel obstruction
- 19.5.2.4 Cardiac
  - 19.5.2.4.1 Asystole
  - 19.5.2.4.2 Global left ventricular function
  - 19.5.2.4.3 Global right ventricular size
  - 19.5.2.4.4 Pericardial fluid
- 19.5.2.5 Ocular
  - 19.5.2.5.1 Undifferentiated vitreous chamber
- 19.5.2.6 Female pelvis (transabdominal and transvaginal approaches)
  - 19.5.2.6.1 Intrauterine pregnancy
  - 19.5.2.6.2 Fetal assessment
    - 19.5.2.6.2.1 Fetal heart rate
- 19.5.2.7 Renal and bladder
  - 19.5.2.7.1 Hydronephrosis
  - 19.5.2.7.2 Bladder volume assessment
- 19.5.2.8 Soft tissue/Musculoskeletal
  - 19.5.2.8.1 Abscess
  - 19.5.2.8.2 Cellulitis
  - 19.5.2.8.3 Necrotizing fasciitis
  - 19.5.2.8.4 Foreign body detection
  - 19.5.2.8.5 Joint effusion
- 19.5.2.9 Thoracic
  - 19.5.2.9.1 Pleural effusion
  - 19.5.2.9.2 Pneumothorax
  - 19.5.2.9.3 Alveolar interstitial syndrome
- 19.5.2.10 Venous/Arterial assessment
  - 19.5.2.10.1 Deep venous thrombosis
  - 19.5.2.10.2 Inferior vena cava
- 19.5.3 Resuscitative
  - 19.5.3.1 Cardiac arrest
  - 19.5.3.2 Medical
  - 19.5.3.3 Traumatic
    - 19.5.3.3.1 Pericardial fluid
    - 19.5.3.3.2 Peritoneal fluid
    - 19.5.3.3.3 Pleural fluid
    - 19.5.3.3.4 Pneumothorax
  - 19.5.3.4 Undifferentiated hypotension
- 19.5.4 Procedural applications
  - 19.5.4.1 Abscess incision and drainage
  - 19.5.4.2 Arthrocentesis
  - 19.5.4.3 Foreign body removal
  - 19.5.4.4 Paracentesis

*(continued on next page)*



**Table 4. (continued)**

- 19.5.4.5 Pericardiocentesis
- 19.5.4.6 Regional anesthesia
- 19.5.4.7 Thoracentesis
- 19.5.4.8 Vascular access
  - 19.5.4.8.1 Central venous
  - 19.5.4.8.2 Peripheral venous
  - 19.5.4.8.3 Arterial

### **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-centered care and patient/family engagement
  - 20.1.1.4 Empathetic and compassionate care management skills
- 20.1.2 Communication skills
  - 20.1.2.1 Complaint management and service recovery
  - 20.1.2.2 Conflict management and resolution
  - 20.1.2.3 Crisis resource management
  - 20.1.2.4 Delivering difficult information to patient and family
  - 20.1.2.5 Notification of family/loved ones of deceased patient
  - 20.1.2.6 Cultural humility
    - 20.1.2.6.1 Implicit bias
    - 20.1.2.6.2 Systemic racism
  - 20.1.2.7 Social determinants of health resource management
  - 20.1.2.8 Negotiation skills
  - 20.1.2.9 Partnering with patients and families to discuss, address, and manage their plan of care
  - 20.1.2.10 Shared decision-making
  - 20.1.2.11 Active listening and building trust
  - 20.1.2.12 Discharge planning, medication management, and patient/family education
  - 20.1.2.13 Handoffs, hospital admission, and patient/family education

### **20.2 Practice-based Learning and Improvement**

- 20.2.1 Performance improvement and lifelong learning
  - 20.2.1.1 Evidence-based medicine

(continued on next page)

**Table 4. (continued)**

- 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 Care teams
- 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 Health care disparities
    - 20.3.1.4 Injury prevention
      - 20.3.1.4.1 Firearm injury
  - 20.3.2 Ethical principles
    - 20.3.2.1 Conflicts of interest
    - 20.3.2.2 Diversity and inclusion awareness
    - 20.3.2.3 Management of medical misinformation and disinformation
    - 20.3.2.4 Medical ethics
    - 20.3.2.5 Stewardship of resources
    - 20.3.2.6 Care of vulnerable populations
    - 20.3.2.7 Gender and sexual orientation
      - 20.3.2.7.1 Transgender care
        - 20.3.2.7.1.1 Gender-affirming therapy and procedures
  - 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 Physician burnout
    - 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

*(continued on next page)*

**Table 4. (continued)**

- 20.4.1.5 Telemedicine
- 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
    - 20.4.2.5.1 Emergency operations plan
    - 20.4.2.5.2 Supplies/Materials procurement and stockpiling
      - 20.4.2.5.2.1 Personal protective equipment
    - 20.4.2.5.3 Hospital-based casualty/disaster protocols
      - 20.4.2.5.3.1 Incident command system
      - 20.4.2.5.3.2 Decontamination, triage, and treatment areas
    - 20.4.2.5.4 External disaster planning
- 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
  - 20.4.3.5 Clinical quality measurement
  - 20.4.3.6 Physician-led care team
- 20.4.4 Health care coordination
  - 20.4.4.1 Advance directives
    - 20.4.4.1.1 Physician orders for life-sustaining treatment (POLST)
  - 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

*(continued on next page)*

**Table 4. (continued)**

20.4.5 Regulatory/Legal
20.4.5.1 Accreditation
20.4.5.2 Compliance and reporting requirements
20.4.5.3 Confidentiality, privacy, 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
20.4.5.7 Good Samaritan emergency care
20.4.5.8 Treatment of unaccompanied minors
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 Regionalization of emergency care
20.4.8 Evolving trends in health care delivery

medicine program faculty to use when integrating the competencies into the training, residency curricula, and evaluation of residents.

#### *EMRA and AAEM/RSA*

EMRA and AAEM/RSA use 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 2022 review of the EM Model resulted in significant changes and clarifications, including the expansion of the ultrasound section within Category 19, Procedures and Skills Integral to the Practice of Emergency Medicine. Category 20, Other Core Competencies of the Practice of Emergency Medicine, was also revised substantially to provide more clarity regarding patient-centered care. Several EM organizations are using the EM Model to support the ongoing development of the specialty of EM. The complete updated 2023 EM Model can be found on the websites of each of the eight collaborating organizations.

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#### **Supplementary Materials**

Supplementary material associated with this article can be found, in the online version, at doi:[10.1016/j.jemermed.2023.02.016](https://doi.org/10.1016/j.jemermed.2023.02.016).

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