

2019 Model of the Clinical Practice of Emergency Medicine

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

The 2019 EM Model Review Task Force conducted the eighth review of the EM Model. Their work is built on the original 2001 EM Model and the subsequent four revisions. The 2019 EM Model is published online in the May 2020 *Journal of Emergency Medicine*.

All changes that resulted from the 2019 EM Model Review Task Force are summarized in Figure 1. The three dimensions as revised in 2019 are presented in Tables 1-4.

Preamble of the Core Content Task Force II, Adapted for the 2019 EM Model

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

2019 EM Model Review Task Force

Michael S. Beeson, M.D., MBA, Chair
Felix Ankel, M.D.
Rahul Bhat, M.D.
Joshua S. Broder, M.D.
Diane L. Gorgas, M.D.
Jonathan S. Jones, M.D.
Sara Paradise Dimeo, M.D.
Viral Patel, M.D.
Elizabeth Schiller, M.D.
Jacob W. Ufberg, M.D.

2016 EM Model Review Task Force

Francis L. Counselman, M.D., Chair
Kavita Babu, M.D.
Mary Ann Edens, M.D., MPH
Diane Gorgas, M.D.
Cherri Hobgood, M.D.
Catherine A. Marco, M.D.
Eric Katz, M.D.
Kevin Rodgers, M.D.
Leonard Stallings, M.D.
Michael C. Wadman, M.D.

2013 EM Model Review Task Force

Francis L. Counselman, M.D., Chair
Marc A Borenstein, M.D.
Carey D. Chisholm, M.D.
Michael L. Epter, D.O.
Sorabh Khandelwal, M.D.
Chadd K. Kraus, D.O., MPH
Samuel D. Lubner, M.D., MPH
Catherine A. Marco, M.D.
Susan B. Promes, M.D.
Gillian Schmitz, M.D.

2011 EM Model Review Task Force

Debra G. Perina, M.D., Chair
Patrick Brunett, M.D.
David A. Caro, M.D.
Douglas M. Char, M.D.
Carey D. Chisholm, M.D.
Francis L. Counselman, M.D.
Jonathan Heidt, M.D.
Samuel Keim, M.D., MS
O. John Ma, M.D.

2009 EM Model Review Task Force

Debra G. Perina, M.D., Chair
Michael S. Beeson, M.D.
Douglas M. Char, M.D.
Francis L. Counselman, M.D.
Samuel Keim, M.D., MS
Douglas L. McGee, D.O.
Carlo Rosen, M.D.
Peter Sokolove, M.D.
Steve Tantama, M.D.

2007 EM Model Review Task Force

Harold A. Thomas, M.D., Chair
Michael S. Beeson, M.D.
Louis S. Binder, M.D.
Patrick H. Brunett, M.D.
Merle A. Carter, M.D.
Carey D. Chisholm, M.D.
Douglas L. McGee, D.O.
Debra G. Perina, M.D.
Michael J. Tocci, M.D.

2005 EM Model Review Task Force

Harold A. Thomas, M.D., Chair
Louis S. Binder, M.D.
Dane M. Chapman, M.D., Ph.D.
David A. Kramer, M.D.
Joseph LaMantia, M.D.
Debra G. Perina, M.D.
Philip H. Shayne, M.D.
David P. Sklar, M.D.
Camie J. Sorensen, M.D., M.P.H.

2003 EM Model Review Task Force

Robert S. Hockberger, M.D., Chair
Louis S. Binder, M.D.
Carey D. Chisholm, M.D.
Jeremy T. Cushman, M.D.
Stephen R. Hayden, M.D.
David P. Sklar, M.D.
Susan A. Stern, M.D.
Robert W. Strauss, M.D.
Harold A. Thomas, M.D.
Diana R. Viravec, M.D.

**Core Content
Task Force II**

Robert S. Hockberger, M.D., Chair
Louis S. Binder, M.D.
Myliisa A. Graber, M.D.
Gwendolyn L. Hoffman, M.D.
Debra G. Perina, M.D.
Sandra M. Schneider, M.D.
David P. Sklar, M.D.
Robert W. Strauss, M.D.
Diana R. Viravec, M.D.

**Advisory Panel to the
Task Force**

William J. Koenig, M.D., Chair
James J. Augustine, M.D.
William P. Burdick, M.D.
Wilma V. Henderson, M.D.
Linda L. Lawrence, M.D.
David B. Levy, D.O.
Jane McCall, M.D.
Michael A. Parnell, M.D.
Kent T. Shoji, M.D.

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

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

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

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

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

The six collaborating organizations reviewed the 2002-2003 EM Model in 2005 and developed a small list of proposed changes to the document. The changes were reviewed and considered by nine representatives from the organizations, i.e., the 2005 EM Model Review Task Force. The Task Force's recommendations were approved by the collaborating organizations and were incorporated into the EM Model. The work of the Task Force was published in the October 2006 *Academic Emergency Medicine* and December 2006 *Annals of Emergency Medicine*.

The next regular review of the EM Model occurred in 2007. The 2007 EM Model Review Task Force recommendations were approved by the collaborating organizations and were

incorporated into the EM Model. The work of the Task Force was published in the August 2008 *Academic Emergency Medicine* and online-only in the August 2008 *Annals of Emergency Medicine*.

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

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

The sixth review of the EM Model occurred in 2013, with the addition of a seventh collaborating organization, the American Academy of Emergency Medicine (AAEM). The 2013 EM Model Review Task Force recommendations were approved by the collaborating organizations and were incorporated into the EM Model. The work of the Task Force was published online-only in the May 2014 *Academic Emergency Medicine*.

In 2014, the collaborating organizations made the decision to review the EM Model on a three-year review cycle. The seventh review of the EM Model occurred in 2016. The 2016 EM Model Review Task Force recommendations were approved by the collaborating organizations and were incorporated into the EM Model. The full 2016 EM Model was published online in the March 2017 *Journal of Emergency Medicine*.

The eighth review of the EM Model occurred in 2019. The 2019 EM Model Review Task Force recommendations were approved by the collaborating organizations and are incorporated into this document. The full 2019 EM Model was published online in the May 2020 *Journal of Emergency Medicine*.

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

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

The Accreditation Council for Graduate Medical Education (ACGME) has implemented the ACGME Outcome Project to assure that physicians are appropriately trained in the knowledge and skills of their specialties. The ACGME derived six general (core) competencies thought to be essential for any practicing physician: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.¹ The six general competencies are an integral part of the practice of

Emergency Medicine and are embedded into the EM Model. To incorporate these competencies into the specialty of EM, an Emergency Medicine Competency Task Force demonstrated how these competencies are integrated into the EM Model.²

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

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. The complete updated 2016 EM Model can be found on the websites of each of the seven collaborating organizations.

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

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

Figure 1

Summary of 2019 EM Model Review Task Force Changes

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

Changes to Table 1. Matrix of Physician Tasks by Patient Acuity

Changed Multiple patient care to Task switching/Multiple patient care

Changes to Table 3. Physician Task Definitions

Modifying factors: Added “gender identity, sexual orientation”

Prevention and education: Added “and harm reduction”

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

to

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.

Changed Multiple patient care to Task switching/Multiple patient care

Patient-centered communication skills: Added Identify situations that require individualized communication, such as goals of care, end of life care, and palliative options.

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

| Location | Description of Change |
|----------|--|
| 1.2.6 | Changed Pelvic pain to Pelvic and genital pain |
| 1.2.10 | Added Neck pain (Critical, Emergent Lower) |
| 1.3.2 | Changed Anuria to Anuria/Oliguria |
| 1.3.3 | Deleted Anxiety |
| 1.3.8 | Changed Constipation to Constipation/Obstipation (Added Emergent) |
| 1.3.45 | Changed Syncope to Syncope/Near syncope |
| 1.3.53 | Deleted Vertigo |
| 1.3.57 | Added Suicidal ideation (Critical, Emergent, Lower) |
| 1.3.58 | Added Brief resolved unexplained events (BRUE) – (Critical, Emergent, Lower) |
| 1.3.59 | Added Intoxication syndromes (Critical, Emergent, Lower) |
| 1.3.60 | Added Postsurgical complications (Critical, Emergent, Lower) |
| 2.1.2 | Added Hematoma (Lower) |
| 2.2.3.1 | Deleted Spasms |
| 2.3.1 | Changed Cirrhosis to Noninfectious hepatitis/Cirrhosis |
| 2.3.1.4 | Added Nonalcoholic steatohepatitis (NASH) – (Lower) |

| | |
|-----------|--|
| 2.3.3.3 | Added Perihepatitis (Lower) |
| 2.4.2 | Added Critical |
| 2.5.3 | Added Pseudocyst (Lower) |
| 2.7.7 | Added Cyclic vomiting syndrome (See 17.1.24.1.1) – (Emergent, Lower) |
| 2.8.2.2 | Changed Gluten enteropathy to Gluten enteropathy/Celiac disease |
| 2.8.3.1 | Added Critical |
| 2.9.3.3 | Added Critical |
| 2.12 | Changed Post-surgical to Specific Post-surgical Populations |
| 3.5.2.2 | Added Dilated (Critical, Emergent, Lower) |
| 3.7 | Deleted Endocarditis |
| 3.7.1 | Added Asymptomatic hypertension (Lower) |
| 3.7.2 | Added Hypertensive emergency (Critical, Emergent) |
| 3.9.1 | Added Endocarditis (Critical, Emergent) |
| 4.3.1 | Changed Atopic to Atopic/Eczema |
| 4.3.3 | Deleted Eczema |
| 4.5.2 | Deleted Erythema nodosum |
| 4.5.3 | Deleted Henoch-Schönlein purpura (HSP) |
| 4.5.5 | Deleted Purpura |
| 4.6.4 | Added Erythema nodosum (Lower) |
| 4.8 | Added Purpuric Rash (Critical, Emergent, Lower) |
| 4.8.1 | Added Henoch-Schönlein purpura (HSP) – (Emergent) |
| 5.3.2 | Changed Fluid overload/Volume depletion to Hypervolemia/Hypovolemia (Added Lower) |
| 5.4 | Reorganized Glucose Metabolism section |
| 5.4.1.1 | Deleted Type I |
| 5.4.1.2 | Deleted Type II |
| 5.4.1.1.1 | Changed Diabetic ketoacidosis (DKA) to Hyperglycemia (Emergent, Lower) |
| 5.4.1.1.2 | Changed Hyperglycemia to Diabetic Ketoacidosis (DKA) – (Critical, Emergent, Lower) |
| 5.4.1.4 | Deleted Insulin pump malfunction |
| 5.8.4 | Added Thyroid storm (Critical, Emergent) |
| 6.4.2 | Deleted Barotrauma of ascent |
| 7.4.2.3 | Added Gingival and periodontal disorders (Emergent, Lower) |
| 7.4.2.4 | Added Odontogenic infections/Abscesses (Emergent, Lower) |
| 7.4.5 | Deleted Gingival and periodontal disorders |
| 7.4.8 | Deleted Dental abscess |
| 8.0 | Changed HEMATOLOGIC DISORDERS to HEMATOLOGIC AND ONCOLOGIC DISORDERS |
| 8.2.1.3 | Added Anticoagulation agents (Critical, Emergent, Lower) |
| 8.5.1.2.1 | Added Critical |
| 8.5.1.2.2 | Added Thalassemia (Emergent, Lower) |
| 8.7.1 | Added Febrile neutropenia (Critical, Emergent, Lower) |
| 8.7.2 | Added Hypercalcemia of malignancy (Critical, Emergent, Lower) |
| 8.7.3 | Added Hyperviscosity syndrome (Critical, Emergent, Lower) |
| 8.7.4 | Added Malignant pericardial effusion (Critical, Emergent, Lower) |
| 8.7.5 | Added Spinal cord compression (See 12.10) – (Critical, Emergent) |
| 8.7.6 | Added Superior vena cava syndrome (Critical, Emergent) |
| 8.7.7 | Added Tumor hemorrhage (Critical, Emergent, Lower) |
| 8.7.8 | Added Tumor lysis syndrome (Critical, Emergent) |

| | |
|-------------|--|
| 9.1.2 | Deleted Critical and added Lower |
| 10.5.4 | Added Babesiosis (Emergent) |
| 10.6.10 | Added Measles (Critical, Emergent, Lower) |
| 10.6.11 | Added Mumps (Paramyxovirus) – (Emergent, Lower) |
| 11.2.2 | Changed Inflammatory spondylopathies to Inflammatory/Infectious spondylopathies |
| 11.2.8 | Added Discitis (Emergent, Lower) |
| 11.2.3.6 | Deleted Critical |
| 11.3.2 | Changed Congenital dislocation of hip to Developmental dysplasia of the hip |
| 11.6.1 | Added Critical and Lower |
| 12.4.2 | Changed VP shunt to Shunt complications |
| 12.5.3.2 | Added Critical |
| 12.5.3.3 | Added Fungal (Critical, Emergent, Lower) |
| 12.5.4.1 | Added Acute flaccid myelitis (Emergent) |
| 12.8.6 | Added Transient global amnesia (Lower) |
| 12.10 | Added (See 8.7.5) |
| 12.13 | Added Critical |
| 12.14 | Added Critical |
| 13.1.2.3 | Added Gangrene of perineum (Critical, Emergent) |
| 13.7.4 | Added Amniotic fluid embolism (Critical, Emergent) |
| 14.1.6 | Added Opioid use disorder (Critical, Emergent, Lower) |
| 14.1.7 | Added Stimulant use disorder (Critical, Emergent, Lower) |
| 14.1.8 | Added Medication-assisted treatment (MAT) – (Emergent, Lower) |
| 14.3 | Added Emergent, Lower |
| 15.2 | Changed Complications of Renal Dialysis to Complications of Dialysis |
| 15.2.1 | Added Vascular (Critical, Emergent, Lower) |
| 15.2.2 | Added Peritoneal (Critical, Emergent, Lower) |
| 15.5.3.3 | Changed Gangrene of the scrotum to Gangrene of the perineum |
| 15.5.6 | Deleted Tumors |
| 15.5.6.1 | Deleted Prostate |
| 15.5.6.2 | Deleted Testis |
| 15.7.2 | Added Critical |
| 16.6.2 | Added Lower |
| 16.6.2.1 | Added Massive and submassive embolism (Critical, Emergent) |
| 16.7.2.3 | Changed Health care associated to Hospital-acquired |
| 16.7.2.4 | Added Pneumocystis (Critical, Emergent, Lower) |
| 17.1.2.1 | Added Critical |
| 17.1.4 | Changed Anticoagulants/Antithrombotics to Anticoagulants/Antithrombotics/Antiplatelets |
| 17.1.4.3 | Added Critical |
| 17.1.24.1.1 | Added (See 2.7.7) |
| 18.1.1.7 | Added Abdominal wall (Emergent, Lower) |
| 18.1.2 | Changed Chest trauma to Thoracic trauma |
| 18.1.2.3.4 | Added Scapula (Emergent, Lower) |
| 18.1.3 | Changed Cutaneous injuries to Cutaneous trauma |
| 18.1.4 | Changed Facial fractures to Facial trauma |
| 18.1.7 | Changed Injuries of the spine to Spine trauma |
| 18.1.10.3 | Changed Eyelid lacerations to Periorbital lacerations |
| 18.1.10.3.1 | Added Eyelid (Emergent) |

| | |
|-------------|--|
| 18.1.10.3.2 | Added Lacrimal duct (Emergent) |
| 18.1.10.6.1 | Deleted Lacrimal duct injuries |
| 19.2.11 | Added Extracorporeal membrane oxygenation (ECMO) |
| 19.2.12 | Added Thermoregulation procedures |
| 19.3.1 | Deleted Local anesthesia; changed Regional nerve block to Regional anesthesia |
| 19.4.1.3 | Deleted Gastric lavage |
| 19.4.1.6 | Added Mechanical control of upper gastrointestinal bleeding |
| 19.4.8.2 | Changed Perimortem c-section to Resuscitative hysterotomy |
| 19.4.11.2 | Added Antidote administration |
| 20.1.2.4 | Changed Delivering bad news to Delivering bad news/death notifications |
| 20.1.2.7 | Added Management of patient expectations |
| 20.3.2.2 | Changed Diversity awareness to Diversity and inclusion awareness |
| 20.3.2.6 | Added Care of vulnerable populations |
| 20.3.4 | Changed Well-being to Well-being and resilience |
| 20.3.4.1.1 | Added Sleep hygiene |
| 20.3.4.5 | Added Job and contract evaluation |
| 20.3.4.6 | Added Care for the caregiver |
| 20.4.1.4 | Changed Health information integration to Health information exchange and interoperability |
| 20.4.2.4.3 | Added Staffing/Scheduling |
| 20.4.2.5 | Added Emergency preparedness |
| 20.4.4 | Reorganized Health care coordination section |
| 20.4.7.2 | Added Gender identity and sexual orientation |
| 20.4.7.2.1 | Added Transgender care |
| 20.4.7.3 | Added Social determinants of health |
| 20.4.7.4 | Added Firearm injury prevention |
| | |

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 | | | |

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

| | |
|---|--|
| 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 exam. |
| 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 EM. |
| Diagnostic studies | Select and perform the most appropriate diagnostic studies and interpret the results, e.g., electrocardiogram, emergency ultrasound, radiographic and laboratory tests. |
| Diagnosis | Develop a differential diagnosis and establish the most likely diagnoses in light of the history, physical, interventions, and test results. |
| Therapeutic interventions | Perform procedures and nonpharmacologic therapies, and counsel. |
| Pharmacotherapy | Select, prescribe, and be aware of adverse effects of appropriate pharmaceutical agents based upon 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 ED. |
| Observation and reassessment | Evaluate and re-evaluate the effectiveness of a patient's treatment or therapy, including addressing complications and potential errors; monitor, observe, manage, and maintain the stability of one or more patients who are at different stages in their work-ups. |
| Consultation | Collaborate with physicians and other professionals to help guide optimal management of patients. |
| 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 healthcare 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. |

MEDICAL KNOWLEDGE, PATIENT CARE, AND PROCEDURAL SKILLS

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

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

With each Task Force review, the Listing of Conditions and Components has evolved to maintain consistency with the current clinical practice of EM. In 2011, it was determined that the contents of the two appendices represented core components of EM knowledge, which, when combined with the Listing of Conditions and Components, encompassed the universe of

knowledge that all practicing emergency physicians should possess. Consequently, the appendices were incorporated into the body of the document and the entire section was renamed Medical Knowledge, Patient Care, and Procedural Skills (Table 4). This change strengthened the inherent link between the EM Model and the ACGME six core competencies.

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

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

| 1.0 SIGNS, SYMPTOMS, AND PRESENTATIONS | | Critical | Emergent | Lower Acuity |
|---|-----------------------------|----------|----------|--------------|
| 1.1 | Abnormal Vital 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 |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 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 Lightheaded/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 | | |
| 1.3.42 Shortness of breath | X | X | |
| 1.3.43 Sore throat | | X | X |
| 1.3.44 Stridor | X | X | |
| 1.3.45 Syncope/Near syncope | X | X | X |
| 1.3.46 Tinnitus | | | X |
| 1.3.47 Tremor | | X | X |
| 1.3.48 Urinary incontinence | | | X |
| 1.3.49 Urinary retention | | X | |
| 1.3.50 Vaginal bleeding | X | X | X |
| 1.3.51 Vaginal discharge | | | X |
| 1.3.52 Visual disturbances | | X | X |

| | Critical | Emergent | Lower Acuity |
|---|----------|----------|--------------|
| 1.3.53 Weakness | | X | X |
| 1.3.54 Wheezing | X | X | |
| 1.3.55 Toxidromes | X | X | X |
| 1.3.56 Sudden unexpected infant death (SUID) | X | | |
| 1.3.57 Suicidal ideation | X | X | X |
| 1.3.58 Brief resolved unexplained events (BRUE) | X | X | X |
| 1.3.59 Intoxication syndromes | X | X | X |
| 1.3.60 Postsurgical complications | X | X | X |

2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS

| | | Critical | Emergent | Lower Acuity |
|---------|--|----------|----------|--------------|
| 2.1 | Abdominal Wall | | | |
| 2.3.1 | Hernias | | X | X |
| 2.3.2 | 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 | |
| 2.4 | Gall Bladder and Biliary Tract | | | |
| 2.4.1 | Cholangitis | X | X | |
| 2.4.2 | Cholecystitis | X | X | |
| 2.4.3 | Cholelithiasis/Choledocholithiasis | | X | X |

| | | Critical | Emergent | Lower Acuity |
|------------------------|--|-------------|----------|--------------|
| 2.4.4 | Tumors | | X | X |
| | | Critical | Emergent | Lower Acuity |
| 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 | |

| | | Critical | Emergent | Lower Acuity |
|----------|---|----------|----------|--------------|
| 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 |
| 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 | |
| 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 |
| 3.7 Hypertension | X | X | X |
| 3.7.1 Asymptomatic hypertension | | | X |
| 3.7.2 Hypertensive emergency | X | X | |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 3.8 Tumors | X | X | |
| 3.9 Valvular Disorders | X | X | X |
| 3.9.1 Endocarditis | X | X | |
| 3.8 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 | | | |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 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 |
| 4.7 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 | | | |

| | | Critical | Emergent | Lower Acuity |
|-------|--------------------------|----------|----------|--------------|
| 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) | X | X | X |
| 6.3.1 Lightning | X | X | |
| 6.4 High-altitude Illness | | | |
| 6.4.1 Acute mountain sickness | | X | X |
| 6.4.2 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 | | | |
| 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 |

| | Critical | Emergent | Lower Acuity |
|---|----------|----------|--------------|
| 7.3.4 Sinusitis | | | X |
| 7.4 Oropharynx/Throat | | | |
| 7.4.1 Dentalgia | | | X |
| 7.4.2 Diseases of the oral soft tissue | | | X |
| 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 | |
| 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 |
| 7.4 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 | |

| | | Critical | Emergent | Lower Acuity |
|-------|----------------------|----------|----------|--------------|
| 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 |
| 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 | 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 |

| | Critical | Emergent | Lower Acuity |
|---|----------|----------|--------------|
| 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 |

| | Critical | Emergent | Lower Acuity |
|------------------------------------|----------|----------|--------------|
| 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 | | | X |
| 12.1.1 Idiopathic facial nerve paralysis (Bell's palsy) | | | X |
| 12.1.2 Trigeminal neuralgia | | | X |
| 12.2 Demyelinating Disorders | X | X | |
| 12.2.1 Multiple sclerosis | | X | X |
| 12.3 Headache (See 1.2.2) | X | X | X |
| 12.3.1 Tension | | | X |
| 12.3.2 Vascular | | X | X |
| 12.3.3 Cluster | | X | X |
| 12.4 Hydrocephalus | | X | X |
| 12.4.1 Normal pressure | | X | X |
| 12.4.2 Shunt complications | | X | |
| 12.5 Infections/Inflammatory Disorders | | | |
| 12.5.1 Encephalitis | X | X | |
| 12.5.2 Intracranial and intraspinal abscess | X | X | |
| 12.5.3 Meningitis | | | |
| 12.5.3.1 Bacterial | X | X | |
| 12.5.3.2 Viral | X | X | 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 | | X | X |
| 12.6.1 Dystonic reaction | | X | X |
| 12.6.2 Chorea/Choreiform | | | X |
| 12.6.3 Tardive dyskinesia | | | X |
| 12.7 Neuromuscular Disorders | | | |
| 12.7.1 Guillain-Barré syndrome | X | X | |
| 12.7.2 Myasthenia gravis | X | X | X |
| 12.7.3 Peripheral neuropathy (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 |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 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 | X | X | X |
| 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 |
| 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 | |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 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 |
| 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-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 |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 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 |

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 | |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 16.7.2.2 Community-acquire | 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 |
| 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 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 | |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 17.1.13 Cyanides, hydrogen sulfide | X | X | |
| 17.1.14 Heavy metals | X | X | |
| 17.1.15 Herbicides, insecticides, and rodenticides | X | X | |

| | | Critical | Emergent | Lower Acuity |
|---------|--|----------|----------|--------------|
| 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 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 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 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 |
| 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 |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 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 Retrobulbar hematoma | | X | |
| 18.1.11 Otologic trauma | | | |
| 18.1.11.1 Hematoma | | X | X |
| 18.1.11.2 Perforated tympanic membrane (See 7.1.7) | | | X |
| 18.1.12 Pediatric fractures | | | |
| 18.1.12.1 Epiphyseal | | X | X |

| | Critical | Emergent | Lower Acuity |
|--|----------|----------|--------------|
| 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 | | | |
| 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 Non-invasive ventilatory management
- 19.1.6 Ventilatory monitoring

19.2 Resuscitation

- 19.2.1 Cardiopulmonary resuscitation
- 19.2.2 Neonatal resuscitation
- 19.2.3 Pediatric resuscitation
- 19.2.4 Post-resuscitative care
 - 19.2.4.1 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
- 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
 - 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

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
 - 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