The Core Content of EMS Medicine[[1]](#footnote-1)

|  | ACGME[[2]](#footnote-2) and ABMS[[3]](#footnote-3) Core Competencies |
| --- | --- |
|  | **Patient Care** | **Medical****Knowledge** | **Practice-based****learning** | **Professionalism** | **Interpersonal****Skills** | **System-based****Practice** |
| **1.0 CLINICAL ASPECTS OF EMS MEDICINE** |  |  |  |  |  |  |
|  **1.1 TIME/LIFE-CRITICAL CONDITIONS** | X | X | X |  |  | X |
|   **1.1.1 Cardiac Arrest** | X | X |  |  | X |  |
|  1.1.1.1 General management and field resuscitation | X | X |  |  | X |  |
|  1.1.1.2 Transport decisions | X | X | X |  |  | X |
|  1.1.1.3 Post-resuscitation care | X | X | X |  |  | X |
|  1.1.1.4 Termination of resuscitation in the field | X | X |  |  |  | X |
|   **1.1.2 Airway Compromise/ Respiratory Failure** | X | X |  |  |  |  |
|  1.1.2.1 Devices for securing airway | X | X |  |  |  |  |
|  1.1.2.2 Portable ventilator management | X | X |  |  |  |  |
|  1.1.2.3 Medication-assisted intubation | X | X |  |  |  |  |
|  1.1.2.4 Tracheotomy complications | X | X | X |  |  |  |
| * + 1. **Hypotension and Shock**
 | X | X |  |  |  |  |
| * + - 1. Recognition of shock and hypotension
 | X | X |  |  |  |  |
| * + - 1. Management of hypotension and shock
 | X | X |  |  |  |  |
| * + 1. **Altered Mental Status**
 | X | X |  |  |  |  |
|  **1.2 INJURY** | X | X |  |  |  |  |
|  **1.2.1 Trauma** | X | X |  |  |  | X |
|  1.2.1.1 Care of the trapped patient | X | X |  |  |  |  |
|  1.2.1.2 Protocols delineating shortened scene time | X | X |  |  |  | X |
| * + - 1. Management and resuscitation of multi-trauma patient
 | X | X |  |  |  | X |
|  1.2.1.4 Field trauma triage  | X | X |  |  |  | X |
|  1.2.1.5 Spinal motion restriction | X | X |  |  |  |  |
|  1.2.1.6 Management of burns | X | X |  |  |  |  |
|  1.2.1.7 Management of crush injuries | X | X |  | X | X |  |
|  1.2.1.8 Management of ocular trauma | X | X  |  |  |  |  |
|  **1.2.2 Orthopedics** | X | X |  |  |  |  |
|  1.2.2.1 Fractures and dislocations | X | X |  |  |  |  |
|  1.2.2.1.1 Splinting, including use of nontraditional materials | X | X |  |  |  |  |
|  1.2.2.1.2 Reductions without anesthetics  | X | X |  |  | X |  |
| * + 1. **Traumatic Brain Injuries**
 | X | X |  |  |  |  |
| * + - 1. Management of severe head injuries
 | X | X | X |  |  | X |
|  1.2.3.2 Management of concussions | X | X |  |  |  |  |
| * + 1. **Assault – Domestic/Sexual/Elder Abuse/Child Abuse**
 | X | X |  | X | X | X |
| * + - 1. Safety
 |  |  |  |  | X | X |
| * + - 1. Evidence preservation and reporting
 |  | X |  |  |  | X |
| * + 1. **Environmental**
 | X | X |  |  |  |  |
| * + - 1. Cold-related illnesses
 | X | X |  |  |  |  |
| * + - * 1. Hypothermia
 | X | X |  |  |  |  |
|  1.2.5.1.1.1 Diagnosis without the use of a thermometer | X | X |  |  |  |  |
| 1.2.5.1.2 Frostbite  | X | X |  |  |  |  |
|  1.2.5.1.2.1 Protection of injury vs. re-warming | X | X |  |  |  |  |
|  1.2.5.2 Heat-related illnesses  | X | X |  |  |  |  |
|  1.2.5.2.1 Methods to cool a patient in the field | X | X |  |  |  | X |
| 1.2.5.3 High altitude injury (e.g., high altitude pulmonary edema, high altitude cerebral edema) | X | X |  |  |  |  |
|  1.2.5.3.1 Protection of the rescuer from high altitude injury | X | X |  |  |  |  |
|  1.2.5.3.2 Portable hyperbaric chamber | X | X |  |  |  | x |
|  1.2.5.3.3 Field prophylaxis and treatment | X | X |  |  |  |  |
|  1.2.5.4 Drowning, submersion, and diving injuries | X | X | X |  |  |  |
|  1.2.5.4.1 Initial management in water | X | X |  |  |  | X |
| 1.2.5.5 Lightning and electrical injuries | X | X |  |  |  | X |
| 1.2.5.5.1 Reverse triage | X | X |  |  |  |  |
|  **1.3 MEDICAL EMERGENCIES** | X | X |  |  |  |  |
|  **1.3.1 Respiratory** | X | X |  |  |  |  |
|  1.3.1.1 Shortness of breath | X | X |  |  |  |  |
|  1.3.1.1.1 Determination of causes | X | X |  |  |  |  |
|  1.3.1.1.2 Use of capnometry and capnography waveforms in diagnosis | X | X |  |  |  |  |
|  1.3.1.1.3 Medical management of respiratory distress or shortness of breath | X | X |  |  |  |  |
|  1.3.1.2 Pneumothorax | X | X |  |  |  |  |
|  1.3.1.2.1 Identifying without ancillary testing | X | X |  |  |  |  |
|  1.3.1.2.2 Management with occlusive dressings and alternative drain devices | X | X |  |  |  |  |
|  **1.3.2 Cardiovascular** | X | X |  |  |  |  |
|  1.3.2.1 ST elevation myocardial infarction (STEMI)  | X | X |  |  |  |  |
|  1.3.2.1.1 Utilization of electrocardiogram (ECG) in the field | X | X |  |  |  | X |
|  1.3.2.1.2 Systems of care |  |  |  |  |  | X |
|  1.3.2.2 Acute exacerbation of congestive heart failure (CHF)  | X | X |  |  |  |  |
|  1.3.2.2.1 Field identification of CHF  | X | X |  |  |  |  |
|  1.3.2.2.2 Medical management in the field | X | X |  |  |  |  |
|  1.3.2.3 Implantable cardiac devices | X | X |  |  |  |  |
|  1.3.2.3.1 Evaluation and management of malfunction | X | X |  |  |  |  |
|  **1.3.3 Neurological**  | X | X |  |  |  |  |
|  1.3.3.1 Stroke  | X | X |  |  |  |  |
|  1.3.3.1.1 Prehospital stroke scales | X | X |  |  |  |  |
|  1.3.3.1.2 Recognition of stroke mimics in the field | X | X |  |  |  |  |
|  1.3.3.2 Management of seizures | X | X |  |  |  |  |
|  **1.3.4 Diabetic Emergencies** | X | X |  |  |  |  |
|  1.3.4.1 Glucagon, oral/intravenous glucose | X | X |  |  |  |  |
|  1.3.4.2 Protocols for treat & release | X | X |  |  |  | X |
|  1.3.4.3 Evaluation and treatment of hyperglycemia | x | x |  |  |  | x |
|  **1.3.5 Renal** | X | X |  |  |  |  |
|  1.3.5.1 Hemodialysis  | X | X |  |  |  | x |
|  1.3.5.1.1 Use of dialysis access for resuscitation | X | X |  |  |  | x |
|  1.3.5.1.2 Uncontrolled hemorrhage from shunt site | X | X |  |  |  |  |
|  1.3.5.1.3 Special considerations for hyperkalemia | X | X |  |  |  |  |
|  **1.3.6 Obstetric and Gynecologic Emergencies** | X | X |  |  |  |  |
|  1.3.6.1 Perinatal issues  | X | X |  |  |  |  |
|  1.3.6.1.1 Control of seizures in eclampsia  | X | X |  |  |  |  |
|  1.3.6.1.2 Placental abruption | X | X |  |  |  |  |
|  1.3.6.1.3 Placenta previa  | X | X |  |  |  |  |
|  1.3.6.2 Childbirth  | X | X |  |  |  |  |
|  1.3.6.2.1 High risk vs. normal delivery  | X | X |  |  |  |  |
|  1.3.6.2.2 Managing home birth catastrophes  | X | X |  |  |  |  |
|  1.3.6.2.3 Post-partum hemorrhage  | X | X |  |  |  |  |
|  1.3.6.2.4 Breech/shoulder dystocia in the field  | X | X |  |  |  |  |
|  1.3.6.2.5 Umbilical cord prolapse | X | X |  |  |  |  |
|  1.3.6.3 Vaginal hemorrhage | X | X |  |  |  |  |
|  1.3.6.3.1 Packing in the field | X | X |  |  |  |  |
|  1.3.6.4 Ectopic pregnancy | X | X |  |  |  |  |
|  1.3.6.4.1 Effect of clinical diagnosis on transport decisions | X | X |  |  |  | X |
|  **1.3.7 Poisoning/Toxicologic Emergencies**  | X | X |  |  |  |  |
|  1.3.7.1 Clinical management of toxins | X | X |  |  |  |  |
|  1.3.7.1.1 Carbon monoxide | X | X |  |  |  |  |
|  1.3.7.1.2 Cyanide | X | X |  |  |  |  |
|  1.3.7.1.3 Chlorine | X | X |  |  |  |  |
|  1.3.7.1.4 Hydrofluoric Acid | X | X |  |  |  |  |
|  1.3.7.1.5 Organophosphates | X | X |  |  |  |  |
|  1.3.7.1.6 Mustards and other blister agents | X | X |  |  |  |  |
|  1.3.7.1.7 Phosgene | X | X |  |  |  |  |
|  1.3.7.1.8 Hydrocarbons | X | X |  |  |  |  |
|  1.3.7.2 Knowledge of poisons, antidotes, chemical properties of hazardous materials,  effects of radiation exposure, and approach to initial decontamination  | X | X |  |  |  | x |
|  1.3.7.3 Caustic substance ingestion | X | X |  |  |  |  |
|  1.3.7.3.1 Prehospital airway management options | X | X |  |  |  |  |
|  1.3.7.4 Decontamination  | X | X |  |  |  |  |
|  **1.3.8 Dermatology** | X | X |  |  |  |  |
|  1.3.8.1 Identification of lesions indicating communicable disease or biohazard |  |  |  |  |  |  |
|  **1.3.9 Communicable Diseases** | X | X |  |  |  |  |
|  1.3.9.1 General | X | X |  |  |  |  |
|  1.3.9.1.1 Knowledge of prehospital personal protective equipment (PPE) | X | X |  |  |  |  |
|  1.3.9.1.2 Isolation of persons with suspected infectious agents (e.g., severe acute respiratory syndrome [SARS]) | X | X |  |  |  | X |
|  1.3.9.2 Multi-Drug Resistant Organisms (MDROs) | X | X |  |  |  |  |
|  1.3.9.2.1 Protection in the field (e.g., PPE, decontamination of ambulances) | X | X |  |  |  |  |
|  1.3.9.3 Category A bioterrorism agents  | X | X |  |  |  |  |
|  1.3.9.3.1 Hemorrhagic fevers | X | X |  |  |  |  |
|  1.3.9.3.2 Smallpox | X | X |  |  |  |  |
|  1.3.9.3.3 Plague | X | X |  |  |  |  |
|  1.3.9.4 Emerging infections | X | X |  |  |  |  |
|  1.3.9.4.1 Pandemic viral illnesses | X | X |  |  |  |  |
|  1.3.9.4.2 SARS | X | X |  |  |  |  |
|  1.3.9.5 Quarantine | X | X |  |  |  |  |
|  **1.3.10 Behavioral Emergencies** | X | X |  |  |  |  |
|  1.3.10.1 Managing combative patients  | X | X |  |  |  |  |
|  1.3.10.1.1 Use of restraints (chemical vs. mechanical) | X | X |  |  |  |  |
|  1.3.10.2 Excited delirium  | X | X |  |  |  |  |
|  1.3.10.3 Violence against EMS providers |  |  |  |  |  |  |
|  **1.4 SPECIAL CLINICAL CONSIDERATIONS** | X | X | X |  |  | X |
|  **1.4.1 Airway Management in Adverse Conditions**  | X | X | X |  |  | X |
|  1.4.1.1 Low light | X | X | X |  |  | X |
|  1.4.1.2 Atypical patient position  | X | X | X |  |  | X |
|  1.4.1.3 Minimal backup | X | X | X |  |  | X |
|  1.4.1.4 Sub-optimal suction in the absence of standard equipment | X | X | X |  |  | X |
|  **1.4.2 Procedures** | X | X |  |  |  |  |
|  1.4.2.1 Airway  | X | X |  |  |  |  |
|  1.4.2.1.1 Opening airway with head-tilt/chin-lift method | X | X |  |  |  |  |
|  1.4.2.1.2 Opening airway with jaw thrust method | X | X |  |  |  |  |
|  1.4.2.1.3 Insertion of oropharyngeal & nasopharyngeal airways  | X | X |  |  |  |  |
|  1.4.2.1.4 Bag-valve-mask  | X | X |  |  |  |  |
|  1.4.2.1.5 Glottic/Supraglottic/Extraglottic airways | X | X |  |  |  |  |
|  1.4.2.1.6 Non-invasive positive pressure ventilation  | X | X |  |  |  |  |
|  1.4.2.1.7 Airway intubation adjuncts  | X | X |  |  |  |  |
|  1.4.2.1.8 Direct laryngoscopy with endotracheal intubation  | X | X |  |  |  |  |
|  1.4.2.1.9 Nasal intubation | X | X |  |  |  |  |
|  1.4.2.1.10 Medication-facilitated intubation  | X | X |  |  |  |  |
|  1.4.2.1.11 Cricothyroidotomy  | X | X |  |  |  |  |
|  1.4.2.1.12 Control of post-tonsillectomy hemorrhage  | X | X |  |  |  |  |
|  1.4.2.1.13 Video laryngoscopy | X | X |  |  |  |  |
|  1.4.2.2 Cardiovascular  | X | X |  |  |  |  |
|  1.4.2.2.1 Placement of peripheral intravenous lines  | X | X |  |  |  |  |
|  1.4.2.2.2 Access or placement of central venous lines in the field  | X | X |  |  |  |  |
|  1.4.2.2.3 Placement of intraosseous lines  | X | X |  |  |  |  |
|  1.4.2.2.3.1 Adult  | X | X |  |  |  |  |
|  1.4.2.2.3.2 Pediatric  | X | X |  |  |  |  |
|  1.4.2.2.4 Prehospital administration of thrombolytics for STEMI  | X | X |  |  |  |  |
|  1.4.2.2.5 Pericardiocentesis without ultrasound guidance or other guidance device  | X | X |  |  |  |  |
|  1.4.2.2.6 Balloon pump management | X | X |  |  |  |  |
|  1.4.2.3 Trauma  | X | X |  |  |  |  |
|  1.4.2.3.1 Needle thoracostomy  | X | X |  |  |  |  |
|  1.4.2.3.2 Tube thoracostomy  | X | X |  |  |  |  |
|  1.4.2.3.3 Control of life threatening hemorrhage  | X | X |  |  |  |  |
|  1.4.2.3.4 Application of traction devices  | X | X |  |  |  |  |
|  1.4.2.3.5 Wound care management  | X | X |  |  |  |  |
|  1.4.2.3.6 Application of backboard as extrication device | X | X |  |  |  |  |
|  1.4.2.3.7 Controlled hyperventilation for management of impending brain herniation in head trauma  | X | X |  |  |  |  |
|  1.4.2.4 Obstetrics  | X | X |  |  |  |  |
|  1.4.2.4.1 Normal delivery of a fetus  | X | X |  |  |  |  |
|  1.4.2.4.1.1 Challenges of prehospital deliveries | X | X |  |  |  |  |
|  1.4.2.4.1.2 Resource allocation with increasing number of multiple births | X | X |  |  |  | X |
|  1.4.2.4.2 Management of abnormal presentations of fetus  | X | X |  |  |  |  |
|  1.4.2.4.3 Management of post-partum hemorrhage  | X | X |  |  |  |  |
|  1.4.2.4.4 Peri/post-mortem cesarean section  | X | X |  |  |  |  |
|  1.4.2.5 Point of care testing | X |  |  |  |  |  |
|  1.4.2.6 Ultrasound Use in EMS | X | X |  |  |  |  |
|  1.4.2.6.1 Focused assessment with Sonography for Trauma (FAST) examination | X | X |  |  |  |  |
|  1.4.2.6.2 Line placement  | X | X |  |  |  |  |
|  1.4.2.6.3 Cardiac activity for field termination of resuscitation | X | X |  |  |  |  |
|  **1.4.3 Pain Assessment and Management in the Field** | X | X |  |  |  |  |
|  **1.4.4 Flight Physiology** | X | X |  |  |  |  |
|  1.4.4.1 Effect of altitude on patient management | X | X | X |  |  | X |
|  1.4.4.2 Effect of altitude on the healthcare provider |  | X | X |  |  | X |
|  **1.4.5 Pediatrics** | X | X |  |  |  |  |
|  1.4.5.1 Controversies over airway management  | X | X |  |  |  |  |
|  1.4.5.2 Pediatric trauma  | X | X |  |  |  | X |
|  1.4.5.3 Specialized equipment  | X | X |  |  |  |  |
|  1.4.5.4 Unique issues related to consent  | X | X |  | X | X | X |
|  1.4.5.5 Maltreatment | X | X |  | X | X |  |
|  1.4.5.6 Brief resolved unexplained event (BRUE ) | X | X |  |  |  |  |
|  1.4.5.7 Seizure mimics  | X | X |  |  |  |  |
|  1.4.5.8 Special needs children | X | X |  |  |  |  |
|  1.4.5.8.1 Technology dependent | X | X |  |  |  |  |
|  **1.4.6 Geriatrics** | X | X |  |  |  |  |
|  1.4.6.1 Geriatric trauma | X | X |  |  |  |  |
|  1.4.6.2 Polypharmacy | X | X | X |  |  | X |
|  1.4.6.3 Maltreatment | X |  |  |  | X | X |
|  **1.4.7 Bariatric Issues** | X | X |  |  | X |  |
|  1.4.7.1 Equipment |  |  |  |  | X | X |
|  1.4.7.2 Procedure challenges | X | X |  |  |  |  |
|  **1.4.8 End-of-Life Issues** | X | X |  | X | X | X |
|  1.4.8.1 Hospice  | X |  |  | X | X | X |
|  1.4.8.2 DNR/DNI/Advanced Directives/Physician Orders for Life Sustaining Treatment (POLST ) | X |  |  | X | X | X |
|  **1.4.9 Social Issues** |  |  |  | X | X | X |
|  1.4.9.1 Isolation syndrome |  |  |  | X | X | X |
|  1.4.9.2 Family centered care  |  |  |  | X | X | X |
|  1.4.9.3 Management of bystanders while caring for patient  |  |  |  | X | X | X |
| * 1. **SPECIAL CONSIDERATIONS FOR EVALUATION, TREATMENT, TRANSPORT, AND**

 **DESTINATIONS** | X | X | X |  |  | X |
|  **1.5.1 Time-Life Critical Conditions** | X | X | X |  |  | X |
|  **1.5.2 Special Patient Populations** |  | X | X |  | X | X |
| **2.0 MEDICAL OVERSIGHT OF EMS** |  |  |  |  |  |  |
|  **2.1 MEDICAL OVERSIGHT**  | X | X | X | X | X | X |
|  **2.1.1 Medical Oversight of EMS Systems** | X | X | X | X | X | X |
|  2.1.1.1 Direct medical oversight  | X | X |  | X | X | X |
|  2.1.1.1.1 Provision of direct patient care  | X | X |  |  |  |  |
|  2.1.1.1.2 Physician directed care via radio or phone  | X | X |  | X | X | X |
|  2.1.1.1.3 Physician directed care in person  | X | X |  | X | X | X |
|  2.1.1.1.4 Telemedicine | X |  |  |  | X | X |
|  2.1.1.2 Indirect medical oversight  | X | X | X | X | X | X |
|  2.1.1.2.1 Evidence guided development of medical care protocols  | X | X | X |  | X | X |
|  2.1.1.2.2 Quality improvement programs  | X | X | X |  | X | X |
|  2.1.1.2.3 Determination of medical necessity in the field | X | X | X |  | X | X |
|  2.1.1.3 Assessment of provider competence and fitness for duty | X |  |  | X | X | X |
|  **2.1.2 Legal Issues** | X |  |  | X | X | X |
|  2.1.2.1 Definition of a patient | X |  |  | X | X | X |
|  2.1.2.2 Mandatory reporting issues | X | X |  | X | X | X |
|  2.1.2.3 Determination and/or pronouncement of death | X | X |  | X | X | X |
|  2.1.2.4 Capacity to refuse care | X | X |  | X | X | X |
|  2.1.2.4.1 Understand the elements of informed consent and informed refusal | X | X | X | X | X |  |
|  2.1.2.4.2 Understand the difference between capacity and competence | X | X | X | X | X |  |
|  2.1.2.5 Federal regulations impacting EMS |  |  |  |  |  | X |
|  **2.2 EMS SYSTEMS** | X | X |  |  | X | X |
|  **2.2.1 Public Safety Answering Points**  |  |  | X | X | X | X |
| 2.2.1.1 Pre-arrival instructions | X | X |  | X | X |  |
| 2.2.1.2 Dispatch  | X | X | X | X | X | X |
|  2.2.1.2.1 Use of lights and sirens | X |  | X | X | X | X |
|  2.2.1.2.2 Prioritization of response (e.g., determining local needs based on local  resources) | X | X | X | X | X | X |
|  2.2.1.2.3 Tiered-response |  |  | X |  |  | X |
|  **2.2.2 Design of** **System Components** |  |  |  |  |  | X |
|  2.2.2.1 Response and transport vehicles |  |  |  |  |  | X |
|  2.2.2.2 EMS provider levels |  |  |  |  |  | X |
|  2.2.2.3 Service delivery models |  |  |  |  |  | X |
|  2.2.2.4 Equipment design and supply issues |  |  |  |  |  | X |
|   **2.2.3 Delivery Systems with Special Considerations** |  |  |  |  |  | X |
|  2.2.3.1 Urban EMS |  |  |  |  |  | X |
|  2.2.3.2 Rural EMS |  |  |  |  |  | X |
|  2.2.3.3 Wilderness EMS |  |  |  |  |  | X |
|  2.2.3.4 Volunteer EMS |  |  |  |  |  | X |
|  2.2.3.5 Inter-facility transport |  |  |  |  |  | X |
|  2.2.3.6 Military EMS |  |  |  |  |  | X |
|  2.2.3.7 Air medical |  |  |  |  |  | X |
|  2.2.3.8 International EMS |  |  |  |  |  | X |
|  **2.3 EMS PERSONNEL**  |  |  |  |  |  | X |
|  **2.3.1 Scope of Practice Models** |  |  |  |  |  | X |
|  2.3.1.1 State vs. national |  |  |  |  |  | X |
|  2.3.1.2 Levels of providers |  |  |  |  |  | X |
|  2.3.1.3 Field capabilities |  |  |  |  |  | X |
|  **2.3.2 Education**  |  |  | X |  |  | X |
|  2.3.2.1 Theories of adult learning  |  |  | X |  |  | X |
|  2.3.2.2 Education delivery models |  |  | X |  |  | X |
|  2.3.2.3 Provider training programs |  |  | X |  |  | X |
|  2.3.2.3.1 Initial education |  |  | X |  |  | X |
|  2.3.2.3.2 Continuing education |  |  | X |  |  | X |
|  2.3.2.4 Accreditation of training programs |  |  | X |  |  | X |
|  2.3.2.5 Remediation and work force re-entry |  |  | X |  |  | X |
|  **2.3.3 EMS Provider Health and Wellness** | X | X |  | X | X | X |
|  2.3.3.1 Occupational culture of safety  | X | X |  | X | X | X |
|  2.3.3.1.1 Occupational health | X | X |  | X | X | X |
|  2.3.3.1.2 Knowledge of regulations and standards (e.g., National Fire Protection Association [NFPA] 1582, Ryan White Act, Occupational Safety and Health Administration [OSHA] requirements) |  |  | X |  |  | X |
|  2.3.3.1.3 Emergency incident rehabilitation | X |  | X | X | X | X |
|  2.3.3.1.4 Awareness of ergonomic factors |  |  | X |  |  | X |
|  2.3.3.1.5 Disordered sleep and work schedule |  |  |  | X | X | X |
|  2.3.3.1.6 Prevention and intervention for psychologically stressful events |  |  |  | X | X | X |
|  2.3.3.1.7 Emergency vehicle operations | X |  | X | X |  | X |
|  2.3.3.2 Exposure to communicable disease | X | X | X | X | X | X |
|  2.3.3.2.1 Standard PPE precautions  | X | X |  |  |  |  |
|  2.3.3.2.2 Appropriate use of PPE for various infectious agents (contact vs. droplet vs. airborne precautions) | X | X |  |  |  |  |
|  2.3.3.2.3 Body substance exposure  | X | X |  |  |  |  |
|  2.3.3.2.3.1 Knowledge of Centers for Disease Control and Prevention (CDC)  guidelines for human immunodeficiency virus (HIV) and other blood-  borne pathogens | X | X | X |  |  |  |
|  2.3.3.2.3.2 Medical director liaison role between hospital and EMS agency | X | X |  |  |  |  |
|  2.3.3.2.4 Post-exposure prophylaxis and testing | X | X |  |  |  |  |
|  **2.4 SYSTEM MANAGEMENT** |  |  |  | X | X | X |
|  **2.4.1 System Finance** |  |  |  |  |  | X |
|  2.4.1.1 Allocation of resources |  |  |  |  |  | X |
|  **2.4.2 Legislation and Government** |  |  |  |  |  | X |
|  2.4.2.1 Working with government and public health agencies  |  |  |  |  | X | X |
|  2.4.2.2 Knowledge of state EMS laws |  |  |  |  |  | X |
|  2.4.2.3 Understanding of healthcare law  |  |  | X |  |  | X |
|  **2.4.3 Public Health** |  | X | X |  |  | X |
|  2.4.3.1 Specialty hospital designations and transport of patient  |  | X | X |  |  | X |
|  2.4.3.2 Field triage issues  |  | X | X |  |  | X |
|  2.4.3.3 Public access to defibrillation (PAD) |  | X | X |  |  | X |
|  2.4.3.4 Issues of hospital diversion and bypass |  | X | X |  |  | X |
|  2.4.3.5 Integration of EMS with community public resources and social services | X |  | X |  |  | X |
|  **2.4.4 System Status Management** |  | X |  |  |  | X |
| 2.4.4.1 Response times | X |  | X |  |  | X |
|  **2.4.5 Service Delivery Models** |  |  |  |  |  | X |
|  **2.4.6 Patient Safety** | X | X |  |  |  | X |
|  **2.4.7 Ethics in EMS** | X |  |  | X | X |  |
|  **2.4.8 Use of Alternative Destinations**  | X | X |  |  |  | X |
| **3.0 QUALITY MANAGEMENT AND RESEARCH** |  |  |  |  |  |  |
|  **3.1 QUALITY IMPROVEMENT PRINCIPLES AND PROGRAMS** |  |  | X |  |  | X |
|  **3.1.1 Data Collection, Management, and Analysis** |  |  | X |  |  | X |
|  **3.1.2 Quality Improvement Programs** |  |  | X |  |  | X |
|  **3.1.3 Evidence-based Practice** |  |  | X |  |  | X |
|  **3.2 RESEARCH** |  |  | X |  |  | X |
|  **3.2.1 Informed Consent (e.g., Use of FDA "Final Rule" and Exception from** **Informed Consent)** |  |  | X |  |  | X |
|  **3.2.2 Fundamental Knowledge of Biostatistics and Epidemiology** |  |  | X |  |  | X |
|  **3.2.3 EMS Research Design** |  |  | X |  |  | X |
| **4.0 SPECIAL OPERATIONS** |  |  |  |  |  |  |
|  **4.1 MASS CASUALTY MANAGEMENT** | X |  | X |  |  | X |
|  **4.1.1 Incident Command System (ICS)** | X |  |  |  | X | X |
|  4.1.1.1 Integration of medical operations |  |  |  |  | X | X |
|  4.1.1.2 Local, state, federal assets |  |  |  |  | X | X |
|  4.1.1.3 Regional resource allocation and management |  |  |  |  | X | X |
|  4.1.1.4 Role of emergency management agencies |  |  |  |  | X | X |
|  **4.1.2 Triage** | X | X |  |  |  | X |
|  **4.1.3 Patient Care in Mass Casualty Events/Scene Management**  | X | X |  | X | X | X |
|  4.1.3.1 On-site treatment  | X | X |  | X | X | X |
|  4.1.3.2 Transport modes  |  |  |  |  |  | X |
|  4.1.3.3 Destination |  |  |  |  |  | X |
|  **4.2 CHEMICAL/BIOLOGICAL/RADIOLOGICAL/NUCLEAR/EXPLOSIVE (CBRNE)** | X | X | X |  |  | X |
|  **4.2.1 Toxic Exposure/Poisoning/Hazardous Materials (HAZMAT)** | X | X | X | X | X | X |
|  4.2.1.1 Indications for HAZMAT team/antidotes | X | X |  |  |  | X |
|  4.2.1.2 Field identification of toxins/hazardous materials | X | X |  |  |  | X |
|  4.2.1.3 Field/provider/patient decontamination  | X | X |  |  |  | X |
|  4.2.1.4 Care of the contaminated patient while wearing PPE | X | X |  |  |  | X |
|  4.2.1.5 Knowledge of various levels of PPE |  |  | X |  |  | X |
|  4.2.1.6 Knowledge of poisons, antidotes, chemical properties of hazardous materials, radiation and effects of exposure | X | X |  |  |  |  |
|  **4.2.2 Explosive Incidents** |  |  |  |  |  | X |
|  4.2.2.1 Improvised Explosive Devices (IEDs) and terrorist activity |  |  |  |  |  | X |
|  4.2.2.2 Community risk assessment  |  |  |  |  |  | X |
|  4.2.2.3 Integration with search and rescue |  |  |  |  |  | X |
|  **4.2.3 Weapons of Mass Destruction and Related Injury**  |  |  |  |  |  | X |
|  4.2.3.1 Secondary devices and scene safety |  |  |  |  |  | X |
|  **4.3 MASS GATHERING** | X | X |  |  |  | X |
|  **4.3.1 Planning and Operations** |  |  | X |  |  | X |
|  4.3.1.1 Medical risk assessment |  |  | X |  |  | X |
|  **4.3.2 Personnel Needs**  | X | X |  |  |  | X |
|  4.3.2.1 Care teams | X | X |  |  |  | X |
|  4.3.2.2 Physician placement | X | X |  |  |  | X |
|  **4.3.3 Training and Drills** |  |  | X |  |  | X |
|  **4.3.4 Design of Temporary Treatment Facilities**  |  |  |  |  |  | X |
|  4.3.4.1 Level of care |  |  |  |  |  | X |
|  4.3.4.2 Ingress/egress |  |  |  |  |  | X |
|  **4.3.5 Equipment**  |  |  |  |  |  | X |
|  **4.3.6** **Communications** |  |  |  | X | X |  |
|  **4.4 DISASTER MANAGEMENT** | X | X |  |  |  | X |
|  **4.4.1 National Incident Management System (NIMS) & National Response Framework** |  |  |  |  |  | X |
|  4.4.1.1 NIMS 100,200, 700, 800 |  |  |  |  |  | X |
|  **4.4.2 Catastrophic Events**  |  |  |  |  |  | X |
|  4.4.2.1 State and federal criteria for disaster declaration |  |  |  |  |  | X |
|  4.4.2.2 State emergency mutual aid compacts  |  |  |  |  |  | X |
|  **4.4.3 Health and Medical Resources**  |  |  |  |  |  | X |
|  4.4.3.1 National Disaster Medical System (NDMS) |  |  |  |  |  | X |
|  4.4.3.2 Specialized teams |  |  |  |  |  | X |
|  4.4.3.3 Non-governmental agencies |  |  |  |  |  | X |
|  4.4.3.4 Regional medical response corps |  |  |  |  |  | X |
|  4.4.3.5 State and federal assets  |  |  |  |  |  | X |
|  **4.4.4 Special Response Considerations** |  |  |  |  |  | X |
|  4.4.4.1 Allocation of scene resources |  |  | X |  |  | X |
|  4.4.4.2 Provider credentialing issues  |  |  |  | X |  | X |
|  4.4.4.3 Modified standards of care |  |  | X |  | X | X |
|  **4.5 EMS SPECIAL OPERATIONS**  | X | X |  |  |  | X |
|  **4.5.1 Tactical**  | X | X |  |  |  | X |
|  4.5.1.1 Initial responder approach to hostile environment | X | X |  |  |  | X |
|  4.5.1.2 Care in a hostile environment | X | X |  |  |  | X |
|  4.5.1.2.1 Bleeding control | X | X |  |  |  |  |
|  4.5.1.3 Operational considerations for provider & casualty | X | X |  |  |  | X |
|  **4.5.2 Technical Rescue**   | X | X |  |  |  |  |
|  4.5.2.1 Confined space care (OSHA definition)  | X | X |  |  |  |  |
| 4.5.2.2 Extrication | X | X |  |  |  |  |
|  **4.5.3 Wilderness EMS Systems** | X |  |  |  |  | X |
|  4.5.3.1 Management of traumatic and medical disorders in a wilderness environment  | X | X |  |  |  |  |
|  4.5.3.2 Evacuation/non-traditional transport | X | X |  |  |  |  |
|  4.5.3.3 Multi-agency response coordination |  |  |  |  |  | X |
|  4.5.3.4 Knowledge of survival skills in remote/wilderness environments  |  |  |  |  |  | X |
|   **4.5.4 Mobile Integrated Healthcare/Community Paramedicine** |  |  |  |  |  | X |
|  4.5.4.1 Personnel education |  |  |  |  |  | X |
|  4.5.4.2 Medical oversight |  |  |  |  |  | X |
|  4.5.4.3 Integration with healthcare systems |  |  |  |  |  | X |

1. used with permission of the American Board of Emergency Medicine, copyright 2019. [↑](#footnote-ref-1)
2. Accreditation Council for Graduate Medical Education (ACGME) [↑](#footnote-ref-2)
3. American Board of Medical Specialties (ABMS) [↑](#footnote-ref-3)