The Core Content of EMS Medicine¹

	ACGME ² and ABMS ³ Conpetencies			Core		
	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	Х	Х	Х			Х
1.1.1 Cardiac Arrest	Х	Х			Х	
1.1.1.1 General management and field resuscitation	Х	Х			Х	
1.1.1.2 Transport decisions	Х	Х	Х			Х
1.1.1.3 Post-resuscitation care	Х	Х	Х			Х
1.1.1.4 Termination of resuscitation in the field	Х	Х				Х
1.1.2 Airway Compromise/ Respiratory Failure	Х	Х				
1.1.2.1 Devices for securing airway	Х	Х				
1.1.2.2 Portable ventilator management	Х	Х				
1.1.2.3 Medication-assisted intubation	Х	Х				
1.1.2.4 Tracheotomy complications	Х	Х	Χ			
1.1.3 Hypotension and Shock	Х	Х				
1.1.3.1 Recognition of shock and hypotension	Х	Х				
1.1.3.2 Management of hypotension and shock	Х	Х				
1.1.4 Altered Mental Status	Х	Х				
1.2 INJURY	Х	Х				
1.2.1 Trauma	Х	Х				Х
1.2.1.1 Care of the trapped patient	Х	Х				
1.2.1.2 Protocols delineating shortened scene time	Х	Х				Х
1.2.1.3 Management and resuscitation of multi-trauma patient	Х	Х				Х
1.2.1.4 Field trauma triage	Х	Х				Х
1.2.1.5 Spinal motion restriction	Х	Х				
1.2.1.6 Management of burns	Х	Х				
1.2.1.7 Management of crush injuries	Х	Х		Х	Х	
1.2.1.8 Management of ocular trauma	Х	Х				
1.2.2 Orthopedics	Х	Х				
1.2.2.1 Fractures and dislocations	Χ	Х				

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 Accreditation Council for Graduate Medical Education (ACGME)
 American Board of Medical Specialties (ABMS)

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	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
1.2.2.1.1 Splinting, including use of nontraditional materials	Х	Х				
1.2.2.1.2 Reductions without anesthetics	Х	Х			Х	
1.2.3 Traumatic Brain Injuries	Х	Х				
1.2.3.1 Management of severe head injuries	Х	Х	Χ			Х
1.2.3.2 Management of concussions	Х	Х				
1.2.4 Assault – Domestic/Sexual/Elder Abuse/Child Abuse	Х	Х		Х	Х	Х
1.2.4.1 Safety					Х	Х
1.2.4.2 Evidence preservation and reporting		Х				Х
1.2.5 Environmental	Х	Х				
1.2.5.1 Cold-related illnesses	Х	Х				
1.2.5.1.1 Hypothermia	Х	Х				
1.2.5.1.1.1 Diagnosis without the use of a thermometer	Х	Х				
1.2.5.1.2 Frostbite	Х	Х				
1.2.5.1.2.1 Protection of injury vs. re-warming	Х	Х				
1.2.5.2 Heat-related illnesses	Х	Х				
1.2.5.2.1 Methods to cool a patient in the field	Х	Х				Х
1.2.5.3 High altitude injury (e.g., high altitude pulmonary edema, high altitude cerebral edema)	Х	Х				
1.2.5.3.1 Protection of the rescuer from high altitude injury	Х	Х				
1.2.5.3.2 Portable hyperbaric chamber	Х	Х				Х
1.2.5.3.3 Field prophylaxis and treatment	Х	Х				
1.2.5.4 Drowning, submersion, and diving injuries	Х	Х	Χ			
1.2.5.4.1 Initial management in water	Х	Х				Х
1.2.5.5 Lightning and electrical injuries	Х	Х				Х
1.2.5.5.1 Reverse triage	Х	Х				
1.3 MEDICAL EMERGENCIES	Х	Х				
1.3.1 Respiratory	Х	Х				
1.3.1.1 Shortness of breath	Х	Х				
1.3.1.1.1 Determination of causes	Х	Х				
1.3.1.1.2 Use of capnometry and capnography waveforms in diagnosis	Х	Х				
1.3.1.1.3 Medical management of respiratory distress or shortness of breath	Х	Х				
1.3.1.2 Pneumothorax	Х	Х				
1.3.1.2.1 Identifying without ancillary testing	Х	Х				
1.3.1.2.2 Management with occlusive dressings and alternative drain devices	Х	Х				
1.3.2 Cardiovascular	Х	Х				

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1.3.2.1 ST elevation myocardial infarction (STEMI)		Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
1.3.2.1.1 Systems of care	1.3.2.1 ST elevation myocardial infarction (STEMI)	Х	Х				
1.3.2.1	1.3.2.1.1 Utilization of electrocardiogram (ECG) in the field	Х	Х				Х
1.3.2.2.1 Field identification of CHF X	1.3.2.1.2 Systems of care						Х
1.3.2.2.2 Medical management in the field	1.3.2.2 Acute exacerbation of congestive heart failure (CHF)	Х	Χ				
1.3.2.3 Implantable cardiac devices X X X 1.3.2.3.1 Evaluation and management of malfunction X X X 1.3.3 Neurological X X X 1.3.3.1 Stroke X X X 1.3.3.1.1 Prehospital stroke scales X X X 1.3.3.2.2 Recognition of stroke mimics in the field X X X 1.3.3.2 Management of seizures X X X 1.3.4.1 Glucagon, oral/intravenous glucose X 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 1.3.5.1 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 X 1.3.6.1.3 Special considerations for hyperkalemia X X X 1.3.6.1 Perinatal issues X X X 1.3.6.1.2 Placental previa X X X 1.3.6.2 Placental previa X X X 1.3.6.2.1 High risk vs. normal delivery X X X 1.3.6.2.2 Breech/shoulder dystocia in the field X X X	1.3.2.2.1 Field identification of CHF	Х	Х				
1.3.2.3.1 Evaluation and management of malfunction X	1.3.2.2.2 Medical management in the field	Х	Χ				
1.3.3 Neurological	1.3.2.3 Implantable cardiac devices	Х	Х				
1.3.3.1 Stroke	1.3.2.3.1 Evaluation and management of malfunction	Х	Χ				
1.3.3.1.1 Prehospital stroke scales	1.3.3 Neurological	Х	Х				
1.3.3.1.2 Recognition of stroke mimics in the field X X X 1.3.3.2 Management of seizures X X X 1.3.4.1 Diabetic Emergencies X X X 1.3.4.1 Glucagon, oral/intravenous glucose X 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 1.3.5.1 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 X 1.3.5.1.3 Special considerations for hyperkalemia X X X 1.3.6.0 Destrict and Gynecologic Emergencies X X X 1.3.6.1 Perinatal issues X X X 1.3.6.1.1 Control of seizures in eclampsia X X X 1.3.6.1.2 Placental abruption X X X 1.3.6.2.1 High risk vs. normal delivery <td>1.3.3.1 Stroke</td> <td>Х</td> <td>Х</td> <td></td> <td></td> <td></td> <td></td>	1.3.3.1 Stroke	Х	Х				
1.3.3.2 Management of seizures X X X 1.3.4 Diabetic Emergencies X X X 1.3.4.1 Glucagon, oral/intravenous glucose X 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 1.3.5.1 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 X 1.3.5.1.3 Special considerations for hyperkalemia X X X 1.3.6 Obstetric and Gynecologic Emergencies X X X 1.3.6.1 Perinatal issues X X X 1.3.6.1.1 Control of seizures in eclampsia X X X 1.3.6.1.2 Placental abruption X X X 1.3.6.2.1 High risk vs. normal delivery X X X 1.3.6.2.2 Managing home birth catastrophes <td< td=""><td>1.3.3.1.1 Prehospital stroke scales</td><td>Х</td><td>Х</td><td></td><td></td><td></td><td></td></td<>	1.3.3.1.1 Prehospital stroke scales	Х	Х				
1.3.4 Diabetic Emergencies	1.3.3.1.2 Recognition of stroke mimics in the field	Х	Х				
1.3.4.1 Glucagon, oral/intravenous glucose	1.3.3.2 Management of seizures	Х	Х				
1.3.4.2 Protocols for treat & release X X 1.3.4.3 Evaluation and treatment of hyperglycemia X X 1.3.5 Renal X X 1.3.5.1 Hemodialysis X X 1.3.5.1.1 Use of dialysis access for resuscitation 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 1.3.6.1.2 Control of seizures in eclampsia X X 1.3.6.1.2 Placental abruption X X 1.3.6.2 Childbirth 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	1.3.4 Diabetic Emergencies	Х					
1.3.4.3 Evaluation and treatment of hyperglycemia 1.3.5 Renal 1.3.5.1 Hemodialysis 1.3.5.1.1 Use of dialysis access for resuscitation 1.3.5.1.2 Uncontrolled hemorrhage from shunt site 1.3.5.1.3 Special considerations for hyperkalemia 1.3.6 Obstetric and Gynecologic Emergencies 1.3.6.1 Perinatal issues 1.3.6.1.1 Control of seizures in eclampsia 1.3.6.1.2 Placental abruption 1.3.6.1.3 Placenta previa 1.3.6.2 Childbirth 1.3.6.2 Childbirth 1.3.6.2.1 High risk vs. normal delivery 1.3.6.2.2 Managing home birth catastrophes 1.3.6.2.4 Breech/shoulder dystocia in the field	1.3.4.1 Glucagon, oral/intravenous glucose	Х	Х				
1.3.5 Renal 1.3.5 Renal X X X X X X X X X X X X X X X X X X X	1.3.4.2 Protocols for treat & release	Х	Χ				Х
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 X 1.3.5.1.3 Special considerations for hyperkalemia X X X 1.3.6 Obstetric and Gynecologic Emergencies X X X 1.3.6.1 Perinatal issues X X X 1.3.6.1.1 Control of seizures in eclampsia X X X 1.3.6.1.2 Placental abruption X X X 1.3.6.1.3 Placenta previa X X X 1.3.6.2 Childbirth X X X 1.3.6.2.1 High risk vs. normal delivery X X X 1.3.6.2.2 Managing home birth catastrophes X X X 1.3.6.2.4 Breech/shoulder dystocia in the field X X X	1.3.4.3 Evaluation and treatment of hyperglycemia	х	х				Х
1.3.5.1.1 Use of dialysis access for resuscitation X X X X X X X X X X X X X X X X X X X	1.3.5 Renal	Х	Χ				
1.3.5.1.2 Uncontrolled hemorrhage from shunt site 1.3.5.1.3 Special considerations for hyperkalemia 1.3.6 Obstetric and Gynecologic Emergencies 1.3.6.1 Perinatal issues 1.3.6.1.1 Control of seizures in eclampsia 1.3.6.1.2 Placental abruption 1.3.6.1.3 Placenta previa 1.3.6.2 Childbirth 1.3.6.2 Childbirth 1.3.6.2.1 High risk vs. normal delivery 1.3.6.2.2 Managing home birth catastrophes 1.3.6.2.3 Post-partum hemorrhage 1.3.6.2.4 Breech/shoulder dystocia in the field	1.3.5.1 Hemodialysis	Х	Х				х
1.3.5.1.3 Special considerations for hyperkalemia X X X 1.3.6 Obstetric and Gynecologic Emergencies X X X 1.3.6.1 Perinatal issues X X X 1.3.6.1.1 Control of seizures in eclampsia X X X 1.3.6.1.2 Placental abruption X X X 1.3.6.2.0 Placenta previa X X X 1.3.6.2 Childbirth X X X 1.3.6.2.1 High risk vs. normal delivery X X X 1.3.6.2.2 Managing home birth catastrophes X X X 1.3.6.2.3 Post-partum hemorrhage X X X 1.3.6.2.4 Breech/shoulder dystocia in the field X X X	1.3.5.1.1 Use of dialysis access for resuscitation	Х	Х				х
1.3.6 Obstetric and Gynecologic Emergencies 1.3.6.1 Perinatal issues 1.3.6.1.1 Control of seizures in eclampsia 1.3.6.1.2 Placental abruption 1.3.6.1.3 Placenta previa 1.3.6.2 Childbirth 1.3.6.2 Childbirth 1.3.6.2.1 High risk vs. normal delivery 1.3.6.2.2 Managing home birth catastrophes 1.3.6.2.3 Post-partum hemorrhage 1.3.6.2.4 Breech/shoulder dystocia in the field	1.3.5.1.2 Uncontrolled hemorrhage from shunt site	Х	Х				
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	1.3.5.1.3 Special considerations for hyperkalemia	Х	Х				
1.3.6.1.1 Control of seizures in eclampsia X X X	1.3.6 Obstetric and Gynecologic Emergencies	Х	Х				
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	1.3.6.1 Perinatal issues	Х	Х				
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	1.3.6.1.1 Control of seizures in eclampsia	Х	Х				
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	1.3.6.1.2 Placental abruption	Х	Х				
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	1.3.6.1.3 Placenta previa	Х	Х				
1.3.6.2.2 Managing home birth catastrophes X X X 1.3.6.2.3 Post-partum hemorrhage X X X 1.3.6.2.4 Breech/shoulder dystocia in the field X X X	1.3.6.2 Childbirth	Х	Х				
1.3.6.2.2 Managing home birth catastrophes X X X I I I I I I I I I I I I I I I I		Х	Х				
1.3.6.2.3 Post-partum hemorrhage X X X		Х	Х				
1.3.6.2.4 Breech/shoulder dystocia in the field X X X		Х	Х				
		Х	Х				
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	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
1.3.6.3 Vaginal hemorrhage	Х	Х				
1.3.6.3.1 Packing in the field	Х	Х				
1.3.6.4 Ectopic pregnancy	Х	Х				
1.3.6.4.1 Effect of clinical diagnosis on transport decisions	Х	Х				Х
1.3.7 Poisoning/Toxicologic Emergencies	Х	Х				
1.3.7.1 Clinical management of toxins	Х	Χ				
1.3.7.1.1 Carbon monoxide	Х	Χ				
1.3.7.1.2 Cyanide	Х	Х				
1.3.7.1.3 Chlorine	Х	Х				
1.3.7.1.4 Hydrofluoric Acid	Х	Χ				
1.3.7.1.5 Organophosphates	Х	Х				
1.3.7.1.6 Mustards and other blister agents	Х	Х				
1.3.7.1.7 Phosgene	Х	Х				
1.3.7.1.8 Hydrocarbons	Х	Х				
1.3.7.2 Knowledge of poisons, antidotes, chemical properties of hazardous materials, effects of radiation exposure, and approach to initial decontamination	Х	Х				х
1.3.7.3 Caustic substance ingestion	Х	Х				
1.3.7.3.1 Prehospital airway management options	Х	Х				
1.3.7.4 Decontamination	Х	Х				
1.3.8 Dermatology	Х	Χ				
1.3.8.1 Identification of lesions indicating communicable disease or biohazard						
1.3.9 Communicable Diseases	Х	Χ				
1.3.9.1 General	Х	Х				
1.3.9.1.1 Knowledge of prehospital personal protective equipment (PPE)	Х	Х				
1.3.9.1.2 Isolation of persons with suspected infectious agents (e.g., severe acute respiratory syndrome [SARS])	Х	Х				Х
1.3.9.2 Multi-Drug Resistant Organisms (MDROs)	Х	Χ				
1.3.9.2.1 Protection in the field (e.g., PPE, decontamination of ambulances)	Х	Χ				
1.3.9.3 Category A bioterrorism agents	Х	Х				
1.3.9.3.1 Hemorrhagic fevers	Х	Х				
1.3.9.3.2 Smallpox	Х	Х				
1.3.9.3.3 Plague	Х	Х				
1.3.9.4 Emerging infections	Х	Х				
1.3.9.4.1 Pandemic viral illnesses	Х	Χ				

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	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
1.3.9.4.2 SARS	Х	Χ				
1.3.9.5 Quarantine	Х	Χ				
1.3.10 Behavioral Emergencies	Х	Χ				
1.3.10.1 Managing combative patients	Х	Χ				
1.3.10.1.1 Use of restraints (chemical vs. mechanical)	Х	Χ				
1.3.10.2 Excited delirium	Х	Х				
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			Х
1.4.1.4 Sub-optimal suction in the absence of standard equipment 1.4.2 Procedures	X	X				
1.4.2.1 Airway	Х	Х				
1.4.2.1.1 Opening airway with head-tilt/chin-lift method	Х	Х				
1.4.2.1.2 Opening airway with jaw thrust method	Х	Х				
1.4.2.1.3 Insertion of oropharyngeal & nasopharyngeal airways	Х	Х				
1.4.2.1.4 Bag-valve-mask	Х	Х				
1.4.2.1.5 Glottic/Supraglottic/Extraglottic airways	Х	Х				
1.4.2.1.6 Non-invasive positive pressure ventilation	Х	Х				
1.4.2.1.7 Airway intubation adjuncts	Х	Х				
1.4.2.1.8 Direct laryngoscopy with endotracheal intubation	Х	Х				
1.4.2.1.9 Nasal intubation	Х	Х				
1.4.2.1.10 Medication-facilitated intubation	Х	Х				
1.4.2.1.11 Cricothyroidotomy	Х	Х				
1.4.2.1.12 Control of post-tonsillectomy hemorrhage	Х	Х				
1.4.2.1.13 Video laryngoscopy	Х	Х				
1.4.2.2 Cardiovascular	Х	Х				
1.4.2.2.1 Placement of peripheral intravenous lines	Х	Х				

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	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
1.4.2.2.2 Access or placement of central venous lines in the field	Х	Х				
1.4.2.2.3 Placement of intraosseous lines	Х	Х				
1.4.2.2.3.1 Adult	Х	Х				
1.4.2.2.3.2 Pediatric	Х	Х				
1.4.2.2.4 Prehospital administration of thrombolytics for STEMI	Х	Х				
1.4.2.2.5 Pericardiocentesis without ultrasound guidance or other guidance device	Х	Х				
1.4.2.2.6 Balloon pump management	Х	Х				
1.4.2.3 Trauma	Х	Х				
1.4.2.3.1 Needle thoracostomy	Х	Х				
1.4.2.3.2 Tube thoracostomy	Х	Х				
1.4.2.3.3 Control of life threatening hemorrhage	Х	Х				
1.4.2.3.4 Application of traction devices	Х	Х				
1.4.2.3.5 Wound care management	Х	Х				
1.4.2.3.6 Application of backboard as extrication device	Х	Х				
1.4.2.3.7 Controlled hyperventilation for management of impending brain herniation in head trauma	Х	х				
1.4.2.4 Obstetrics	Х	Х				
1.4.2.4.1 Normal delivery of a fetus	Х	Х				
1.4.2.4.1.1 Challenges of prehospital deliveries	Х	Х				
1.4.2.4.1.2 Resource allocation with increasing number of multiple births	Х	Х				Х
1.4.2.4.2 Management of abnormal presentations of fetus	Х	Х				
1.4.2.4.3 Management of post-partum hemorrhage	Х	Х				
1.4.2.4.4 Peri/post-mortem cesarean section	Х	Х				
1.4.2.5 Point of care testing	Х					
1.4.2.6 Ultrasound Use in EMS	Х	Х				
1.4.2.6.1 Focused assessment with Sonography for Trauma (FAST) examination	Х	Х				
1.4.2.6.2 Line placement	Х	Х				
1.4.2.6.3 Cardiac activity for field termination of resuscitation	Х	Х				

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	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
1.4.3 Pain Assessment and Management in the Field	Х	Х				
1.4.4 Flight Physiology	Х	Х				
1.4.4.1 Effect of altitude on patient management	Х	Х	Х			Х
1.4.4.2 Effect of altitude on the healthcare provider		Х	Х			Х
1.4.5 Pediatrics	Х	Х				
1.4.5.1 Controversies over airway management	Х	Х				
1.4.5.2 Pediatric trauma	Х	Х				Х
1.4.5.3 Specialized equipment	Х	Х				
1.4.5.4 Unique issues related to consent	Х	Х		Х	Х	Х
1.4.5.5 Maltreatment	Х	Х		Х	Х	
1.4.5.6 Brief resolved unexplained event (BRUE)	Х	Х				
1.4.5.7 Seizure mimics	Х	Χ				
1.4.5.8 Special needs children	Х	Х				
1.4.5.8.1 Technology dependent	Х	Х				
1.4.6 Geriatrics	Х	Х				
1.4.6.1 Geriatric trauma	Х	Х				
1.4.6.2 Polypharmacy	Х	Х	Χ			Х
1.4.6.3 Maltreatment	Х				Х	Х
1.4.7 Bariatric Issues	Х	Х			Х	
1.4.7.1 Equipment					Х	Х
1.4.7.2 Procedure challenges	Х	Х				
1.4.8 End-of-Life Issues	Х	Х		Х	Х	Х
1.4.8.1 Hospice	Х			Х	Х	Х
1.4.8.2 DNR/DNI/Advanced Directives/Physician Orders for Life Sustaining Treatment (POLST)	Х			Х	Х	Х
1.4.9 Social Issues				Χ	Х	Х
1.4.9.1 Isolation syndrome				Χ	Х	Х
1.4.9.2 Family centered care				Χ	Х	Х
1.4.9.3 Management of bystanders while caring for patient				Χ	Х	Х
1.4 SPECIAL CONSIDERATIONS FOR EVALUATION, TREATMENT, TRANSPORT, AND DESTINATIONS	Х	Х	Х			Х
1.5.1 Time-Life Critical Conditions	Х	Χ	Х			Х
1.5.2 Special Patient Populations		Χ	Χ		Х	Х

	AC	ACGME ² and ABMS ³ Core Competencies					
	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice	
2.0 MEDICAL OVERSIGHT OF EMS							
2.1 MEDICAL OVERSIGHT	Х	Х	Х	Х	Х	Х	
2.1.1 Medical Oversight of EMS Systems	Х	Х	Х	Х	Х	Х	
2.1.1.1 Direct medical oversight	Х	Х		Х	Х	Х	
2.1.1.1.1 Provision of direct patient care	Х	Х					
2.1.1.1.2 Physician directed care via radio or phone	Х	Х		Х	Х	Х	
2.1.1.1.3 Physician directed care in person	Х	Х		Х	Х	Х	
2.1.1.1.4 Telemedicine	Х				Х	Х	
2.1.1.2 Indirect medical oversight	Х	Х	Х	Х	Х	Х	
2.1.1.2.1 Evidence guided development of medical care protocols	Х	Х	Х		Х	Х	
2.1.1.2.2 Quality improvement programs	Х	Х	Х		Х	Х	
2.1.1.2.3 Determination of medical necessity in the field	Х	Х	Х		Х	Х	
2.1.1.3 Assessment of provider competence and fitness for duty	Х			Х	Х	Х	
2.1.2 Legal Issues	Х			Х	Х	Х	
2.1.2.1 Definition of a patient	Х			Х	Х	Х	
2.1.2.2 Mandatory reporting issues	Х	Х		Х	Х	Х	
2.1.2.3 Determination and/or pronouncement of death	Х	Х		Х	Х	Х	
2.1.2.4 Capacity to refuse care	Х	Х		Х	Х	Х	
2.1.2.4.1 Understand the elements of informed consent and informed refusal	Х	Х	Х	Х	Х		
2.1.2.4.2 Understand the difference between capacity and competence	Х	Х	Х	Х	Х		
2.1.2.5 Federal regulations impacting EMS						Х	
2.2 EMS SYSTEMS	Х	Х			Х	Х	
2.2.1 Public Safety Answering Points			Х	Х	Х	Х	
2.2.1.1 Pre-arrival instructions	Х	Х		Х	Х		
2.2.1.2 Dispatch	Х	Х	Х	Х	Х	Х	
2.2.1.2.1 Use of lights and sirens	Х		Χ	Х	Х	Х	
2.2.1.2.2 Prioritization of response (e.g., determining local needs based on local resources)	Х	Х	Х	Х	Х	Х	
2.2.1.2.3 Tiered-response			Х			Х	
2.2.2 Design of System Components						Х	
2.2.2.1 Response and transport vehicles						Х	
2.2.2.2 EMS provider levels						Х	
2.2.2.3 Service delivery models						Х	
2.2.2.4 Equipment design and supply issues						Х	
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2.2.3 Delivery Systems with Special Considerations

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	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
2.2.3.1 Urban EMS						Х
2.2.3.2 Rural EMS						Х
2.2.3.3 Wilderness EMS						Х
2.2.3.4 Volunteer EMS						Х
2.2.3.5 Inter-facility transport						Х
2.2.3.6 Military EMS						Х
2.2.3.7 Air medical						Х
2.2.3.8 International EMS						Х
2.3 EMS PERSONNEL						Х
2.3.1 Scope of Practice Models						Х
2.3.1.1 State vs. national						Х
2.3.1.2 Levels of providers						Х
2.3.1.3 Field capabilities						Х
2.3.2 Education			Х			Х
2.3.2.1 Theories of adult learning			Х			Х
2.3.2.2 Education delivery models			Х			Х
2.3.2.3 Provider training programs			Х			Х
2.3.2.3.1 Initial education			Х			Х
2.3.2.3.2 Continuing education			Х			Х
2.3.2.4 Accreditation of training programs			Х			Х
2.3.2.5 Remediation and work force re-entry			Х			Х
2.3.3 EMS Provider Health and Wellness	Х	Χ		Х	Х	Х
2.3.3.1 Occupational culture of safety	Х	Х		Х	Х	Х
2.3.3.1.1 Occupational health	Х	Х		Х	Х	Х
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)			х			х
2.3.3.1.3 Emergency incident rehabilitation	Х		Х	Х	Х	Х
2.3.3.1.4 Awareness of ergonomic factors			Х			Х
2.3.3.1.5 Disordered sleep and work schedule				Х	Х	Х
2.3.3.1.6 Prevention and intervention for psychologically stressful events				Х	Х	Х
2.3.3.1.7 Emergency vehicle operations	Х		Х	Х		Х
2.3.3.2 Exposure to communicable disease	Х	Х	Х	Х	Х	Х
2.3.3.2.1 Standard PPE precautions	Х	Х				

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	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
2.3.3.2.2 Appropriate use of PPE for various infectious agents (contact vs. droplet vs. airborne precautions)	Х	Х				
2.3.3.2.3 Body substance exposure	Χ	Х				
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	Х	Х	Х			
2.3.3.2.3.2 Medical director liaison role between hospital and EMS agency	Χ	Х				
2.3.3.2.4 Post-exposure prophylaxis and testing	Х	Х				
2.4 SYSTEM MANAGEMENT				Х	Х	Х
2.4.1 System Finance						Х
2.4.1.1 Allocation of resources						Х
2.4.2 Legislation and Government						Х
2.4.2.1 Working with government and public health agencies					Х	Х
2.4.2.2 Knowledge of state EMS laws						Х
2.4.2.3 Understanding of healthcare law			Х			Х
2.4.3 Public Health		Х	Х			Х
2.4.3.1 Specialty hospital designations and transport of patient		Х	Х			Х
2.4.3.2 Field triage issues		Х	Χ			Х
2.4.3.3 Public access to defibrillation (PAD)		Х	Χ			Х
2.4.3.4 Issues of hospital diversion and bypass		Х	Х			Х
2.4.3.5 Integration of EMS with community public resources and social services	Χ		Χ			Х
2.4.4 System Status Management		Χ				Х
2.4.4.1 Response times	Χ		Χ			Х
2.4.5 Service Delivery Models						Х
2.4.6 Patient Safety	Χ	Χ				Х
2.4.7 Ethics in EMS	Χ			Χ	Х	
2.4.8 Use of Alternative Destinations	Х	Х				Х
3.0 QUALITY MANAGEMENT AND RESEARCH						
3.1 QUALITY IMPROVEMENT PRINCIPLES AND PROGRAMS			Х			Х
3.1.1 Data Collection, Management, and Analysis			Х			Х

3.1.2 Quality Improvement Programs

3.1.3 Evidence-based Practice

3.2 RESEARCH

Χ

Χ

Χ

Χ

Χ

Χ

	ACGME ² and ABMS ³ Conceptencies					
	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
3.2.1 Informed Consent (e.g., Use of FDA "Final Rule" and Exception from Informed Consent)			Х			Х
3.2.2 Fundamental Knowledge of Biostatistics and Epidemiology			Х			Х
3.2.3 EMS Research Design			Х			Х
4.0 SPECIAL OPERATIONS						
4.1 MASS CASUALTY MANAGEMENT	Х		Х			Х
4.1.1 Incident Command System (ICS)	Х				Х	Х
4.1.1.1 Integration of medical operations					Х	Х
4.1.1.2 Local, state, federal assets					Х	Х
4.1.1.3 Regional resource allocation and management					Х	Х
4.1.1.4 Role of emergency management agencies					Х	Х
4.1.2 Triage		Х				Х
4.1.3 Patient Care in Mass Casualty Events/Scene Management	Х	Х		Χ	Х	Х
4.1.3.1 On-site treatment	Х	Х		Χ	Х	Х
4.1.3.2 Transport modes						Х
4.1.3.3 Destination						Х
4.2 CHEMICAL/BIOLOGICAL/RADIOLOGICAL/NUCLEAR/EXPLOSIVE (CBRNE)	Х	Х	Х			Х
4.2.1 Toxic Exposure/Poisoning/Hazardous Materials (HAZMAT)	Х	Х	Х	Х	Х	Х
4.2.1.1 Indications for HAZMAT team/antidotes	Х	Х				Х
4.2.1.2 Field identification of toxins/hazardous materials	Х	Х				Х
4.2.1.3 Field/provider/patient decontamination	Х	Х				Х
4.2.1.4 Care of the contaminated patient while wearing PPE	Х	Х				Х
4.2.1.5 Knowledge of various levels of PPE			Х			Х
4.2.1.6 Knowledge of poisons, antidotes, chemical properties of hazardous materials, radiation and effects of exposure	Х	Х				
4.2.2 Explosive Incidents						Х
4.2.2.1 Improvised Explosive Devices (IEDs) and terrorist activity						Х
4.2.2.2 Community risk assessment						Х
4.2.2.3 Integration with search and rescue						Х
4.2.3 Weapons of Mass Destruction and Related Injury						Х

4.2.3.1 Secondary devices and scene safety

4.3 MASS GATHERING

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	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice
4.3.1 Planning and Operations			Х			Х
4.3.1.1 Medical risk assessment			Х			Х
4.3.2 Personnel Needs	Х	Х				Х
4.3.2.1 Care teams	Х	Х				Х
4.3.2.2 Physician placement	Х	Х				Х
4.3.3 Training and Drills			Χ			Х
4.3.4 Design of Temporary Treatment Facilities						Х
4.3.4.1 Level of care						Х
4.3.4.2 Ingress/egress						Х
4.3.5 Equipment						Х
4.3.6 Communications				Χ	Х	
4.4 DISASTER MANAGEMENT	Х	Х				Х
4.4.1 National Incident Management System (NIMS) & National Response Framework						Х
4.4.1.1 NIMS 100,200, 700, 800						Х
4.4.2 Catastrophic Events						Х
4.4.2.1 State and federal criteria for disaster declaration						Х
4.4.2.2 State emergency mutual aid compacts						Х
4.4.3 Health and Medical Resources						Х
4.4.3.1 National Disaster Medical System (NDMS)						Х
4.4.3.2 Specialized teams						Х
4.4.3.3 Non-governmental agencies						Х
4.4.3.4 Regional medical response corps						Х
4.4.3.5 State and federal assets						Х
4.4.4 Special Response Considerations						Х
4.4.4.1 Allocation of scene resources			Х			Х
4.4.4.2 Provider credentialing issues				Х		Х
4.4.4.3 Modified standards of care			Х		Х	Х
4.5 EMS SPECIAL OPERATIONS	Х	Х				Х
4.5.1 Tactical	Х	Х				Х
4.5.1.1 Initial responder approach to hostile environment	Х	Χ				Х
4.5.1.2 Care in a hostile environment	Х	Χ				Х
4.5.1.2.1 Bleeding control	Х	Х				
4.5.1.3 Operational considerations for provider & casualty	Х	Χ				Х

	AC	ACGME ² and ABMS ³ Con Competencies							
	Patient Care	Medical Knowledge	Practice-based learning	Professionalism	Interpersonal Skills	System-based Practice			
4.5.2 Technical Rescue	Х	Х							
4.5.2.1 Confined space care (OSHA definition)	Х	Х							
4.5.2.2 Extrication	Х	Х							
4.5.3 Wilderness EMS Systems	Х					Х			
4.5.3.1 Management of traumatic and medical disorders in a wilderness environm	ent X	Х							
4.5.3.2 Evacuation/non-traditional transport	Х	Х							
4.5.3.3 Multi-agency response coordination						Х			
4.5.3.4 Knowledge of survival skills in remote/wilderness environments						Х			
4.5.4 Mobile Integrated Healthcare/Community Paramedicine						Х			
4.5.4.1 Personnel education						Х			
4.5.4.2 Medical oversight						Х			
4.5.4.3 Integration with healthcare systems						Х			