هيئة الهلال الأحمر السعودي
SAUDI RED CRESCENT AUTHORITY

National Emergency Medical Services Scope of Practice

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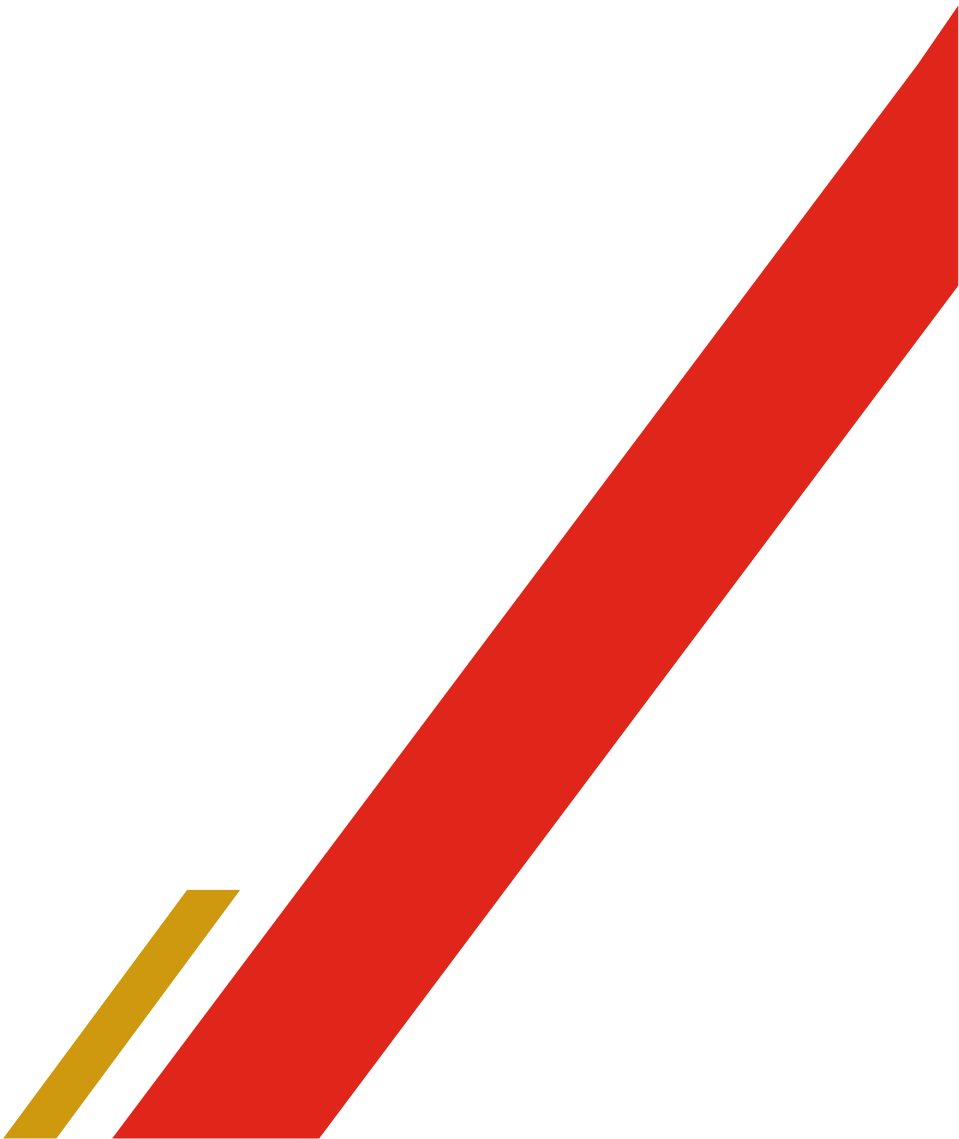

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Introduction

Emergency medical services in Saudi Arabia are going through a transformation to more precisely define professions. For the past twenty years, Saudi Arabia has relied upon educational outcomes to define the scope of practice for prehospital care. This approach was effective when educational programs were limited and directly supervised by employers, before healthcare began transforming into a more defined and sophisticated system that defines roles granularly. In addition, educational programs are growing in size and number, further limiting the previous approach of direct supervision.

This document aims to define prehospital professions and their scope of practice, as well as to answer the question: "what can a prehospital provider do?". Defining the maximum practice privilege of a prehospital provider will help not only to guide educational standards, but also to shape prehospital care services. For it will further define the ideal outer limits of prehospital service. Indeed, this document intends to be the corner stone of further documents that define emergency medical services.

These documents would include the national EMS educational framework, the national EMS examinations, the national EMS practice guidelines and protocols, and the national EMS standards.

Prehospital care professions

A variety of professions provide care in the prehospital arena. Each profession has its unique role and scope, focusing on a specific part of the patient care journey. It is important to point out that prehospital care professions are not universal. Indeed, when healthcare systems develop, prehospital care is a natural progression of the increasing sophistication of patient care. Hence, prehospital care professions reflect the needs of particular systems and their respective nuisances. This document aims to define the scope of practice of prehospital care in Saudi Arabia, including a description of the most suitable model of prehospital care professional practice. The following is a list of prehospital professions in Saudi Arabia, as well as the training required for each.

No	Profession	Degree or Diploma
1	Emergency Medical Dispatcher (EMD)	EMD course
2	First Medical Responder (FMR)	FMR course
3	Emergency Medical Technician (EMT)	EMT diploma
4	Paramedic	Bachelor in paramedicine
5	Advanced Paramedic (APs)	Clinical diploma post-bachelor or equivalent
6	EMS Physician	**Minimum:** medical degree with experience in EMS **Maximum:** Fellowship in emergency medical services post-board certification in emergency medicine

Lenses of safe practice

In healthcare institutions, teams of several members in different professions provide care. Patients interact with physicians, nurses, specialists, technicians, and so on. Providers contact each other face-to- face, attend to patients simultaneously, and group-think management plans. Patients report their concerns to multiple providers, making it easier to fill in potential gaps in the team's knowledge of patient history and complaint(s). This team approach plays a significant role in ensuring patient safety and optimal care delivery. Additionally, healthcare institution providers practice in a controlled environment with several layers of support and built-in redundancies.

Healthcare provision in prehospital settings carries a higher risk to patients and providers alike. Prehospital providers tend to give care alone in an uncontrolled environment. Patients are in their homes or in the street with an undifferentiated status, presenting with an event rather than with a complaint.

Prehospital providers have multiple sequential steps to manage the patient in a protocolized manner, with limited mechanisms to provide support and oversight of rendered care. This higher level of risk mandates a structured approach to ensure safe provision of care. In this document, we look at the prehospital provider's ability to give safe and effective care through multiple mechanisms. We elect to call these mechanisms "lenses" to stress the need for the alignment of all involved parties.

Education lens

Prehospital providers complete an educational program that prepares them to confer care to patients. All programs end with a certificate or a diploma that signals the learner's readiness to join the workforce.

For the purposes of this document, the certificate or diploma granted at the end of an educational program is the first lens of provider ability to practice safely. Two key concepts must be adopted to optimize the function of this lens. First, all educational programs for prehospital providers need to be plotted on the same continuum of learning to ensure their connectedness, relevancy to each other, and complementariness. Second, all educational programs must

have a nationally imposed educational framework that guarantees quality and limits outcome variability among different educational institutions. The national educational framework must be based on the scope of practice of prehospital providers to ensure that it reflects the actual training and education that needs that exist in the workplace. This lens provides the deepest look at the prehospital provider's ability, but it is limited to the time that they spend in an educational program before gaining their diploma.

Examination lens

Prehospital care providers complete an independent examination after they gain their respective diploma. The examination shall be nationally unified to ensure consistency of service provision, and it shall be based on the scope of practice of each prehospital profession. Moreover, it might be useful to have prehospital providers redo such an examination when they encounter a practice gap or find themselves subject to reevaluation. Furthermore, it might be advised that prehospital providers retake the examination periodically to ensure their safety to practice, even if they have been actively practicing. This exam must have a blueprint that reflects the weight and importance of different components of prehospital science. It is imperative that this exam is specific to profession (EMT exam, Paramedic exam, etc.). This lensis shallower than other lenses due to the limitations of testing representative knowledge, which always make an assumption about the untested portion of the provider's knowledge.

Licensing lens

After completion of an educational program and the national examination, providers are eligible for a license request that shall be specific for every prehospital profession. The purpose of licensing is legal.

License granting means that the licensing entity has been convinced that an applicant is sufficiently trained to perform actions that are otherwise illegal for them to do so –i.e., practicing medicine.

Applicants shall present substantial evidence that they have the ability to practice safely. Such evidence might include a diploma, a passing score on the national examination, continuous training and education hours, proof of full scope of practice in the preceding licensing period, and others. This lens is shallow, but it is used several times over the prehospital provider's career. This fact makes it useful in reevaluating providers on regular basis.

Privileges and dynamic

Once prehospital providers are granted a license to practice, they are ready to enter the workforce. Employers will grant providers a set of clinical privileges for a specific period. Due to high independency and practice isolation in prehospital care, clinical privileges must be granted on dynamic basis. Prehospital providers must practice their privileges–in real life or in simulation–or lose them. Online medical controllers and medical directors must have the ability to revoke privileges on a temporary basis in order to ensure patient safety. A maximum time period of no practice must be defined for every clinical privilege. Once a privilege is revoked, providers are required to show substantial evidence of reeducation and/or retraining for that specific privilege before they can gain it back. This lens is deep, as it looks continuously at provider practice and safety.

Clinical quality lens

Medical directors are required to review the performance of prehospital providers via continuous monitoring of provided care. Such monitoring may involve a flagging system in which specific episodes of care are flagged for review. Flags might be operational—e.g., all episodes of care in which scene time is too long; provider specific—e.g., all episodes of care provided by new staff for the first month; or patient specific—e.g., all episodes of care involving an infant. Other methods of quality monitoring can be utilized based on monitoring needs and length. Key Performance Indicators (KPIs) of clinical significance can be used to monitor specific interventions automatically—e.g., number of patients who are having a seizure when the provider has checked their respective blood glucose levels. This lens is adjustable in depth and length of monitoring time.

B = basic:

Able to perform in standard circumstances

Knows the essential facts or principles of the subject

P = proficient:

Able to perform in standard and difficult unusual circumstances

Knows all the principles of the subject

A = advanced:

Able to perform in standard and difficult unusual circumstances and able to teach the skill

Knows all the principles of the subject and able to teach the subject in a competent way

B-assist: basic assist:

Able to assist an advanced provider in standard circumstances

None:

non-applicable

P-optional:

may or may not know in the subject

has the option to know the subject

Competencies of prehospital care professionals

Emergency Medical Dispatchers (EMDs)

Prehospital care providers who receive requests for emergency medical response, dispatches appropriate resources, and provides prearrival instructions utilizing a structured approach. EMDs triage patients, allocate resources, coordinate responses, ensure scene safety, document interactions, and provide prearrival instructions, including cardiopulmonary resuscitation procedures.

Competencies of EMDs[I, II]

1. Triage patients. [K, P]
2. Translate event descriptions to a response code. [K, A]
3. Integrate basic, clinical, behavioral, and social sciences in prehospital care practice. [K, B]
4. Relay preformulated instructions to callers, including resuscitation procedures. [K, A]
5. Coordinate the responses of several public safety responders. [K, P]
6. Ensure scene safety. [K, P]
7. Use medical, communication, and information technologies in prehospital care. [S, P]
8. Communicate with fluent linguistic ability. [S, A]
9. Communicate effectively. [S, P]
10. Aid other prehospital providers in the logistics of care provision. [S, P]
11. Coach callers on providing prearrival instructions. [S, P]
12. Remain calm during periods of high stress. [V, A]
13. Control callers who are emotionally disturbed. [V, A]
14. Preserve patient confidentiality. [V, A]
15. Maintain a high level of ethical conduct. [V, A]

I [Knowledge K, Skill S, Value V, Basic level B, Proficient level P, Advanced level A].
II Levels are a cooperative concept between prehospital care providers. It is up to the discretion of educators and medical directors to further define the boundaries between levels.

First Medical Responders (FMRs)

Prehospital care providers who respond to requests of emergency medical assistance, provide basic medical care, and aid other prehospital providers in care provision. FMRs have a limited scope of practice that pertains to life-sustaining interventions that are time-sensitive. Members of the community in other fields besides EMS cross-train as FMRs to maximize their ability to help others in need of emergent medical attention.

Competencies of FMRs[I, II]

1. Triage patients. [K, B]
2. Interpret medical terminology and basic physiologic and pathologic concepts. [K, B]
3. Ensure scene safety. [K, B]
4. Identify and manage specific clinical problems. (Appendix B) [K, B]
5. Perform specific clinical interventions. (Appendix C). [S, B]
6. Administer medications. (Appendix D). [S, B]
7. Aid other prehospital providers in logistics of care provision. [S, B]
8. Remain calm during periods of high stress. [V, A]
9. Preserve patient confidentiality. [V, A]
10. Maintain a high level of ethical conduct. [V, A]

I [Knowledge K, Skill S, Value V, Basic level B, Proficient level P, Advanced level A].

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Emergency Medical Technicians (EMTs)

Prehospital care providers who access, treat, monitor, and transport patients using preauthorized clinical care protocols at a basic level. EMTs form most of the prehospital care workforce and constitute the backbone of the EMS system.

Competencies of EMTs[I, II]

1. Integrate basic, clinical, behavioral, and social sciences in prehospital care practice. [K,P]
2. Triage patients. [K, P]
3. Manage patients with common traumatic, mental, and medical pathologies (Appendix A). [K, B]
4. Identify and manage specific clinical problems. (Appendix B) [K, P]
5. Function in a disaster response system. [K, B]
6. Coordinate the responses of several public safety responders. [K, B]
7. Ensure scene safety. [K, A]
8. Follow instructions of online medical controllers. [S, B]
9. Carry out protocols of offline medical controllers. [S, B]
10. Use clinical reasoning, decision-making, and problem-solving skills. [S, B]
11. Perform specific clinical interventions (Appendix C). [S, P]
12. Administer medications. (Appendix D). [S, P]
13. Use medical, communication, and information technologies in prehospital care. [S, P]
14. Practice teamwork and inter-professional collaboration. [S, A]
15. Communicate effectively. [S, A]
16. Remain calm during periods of high stress. [V, A]
17. Preserve patient confidentiality. [V, A]
18. Maintain a high level of ethical conduct. [V, A]

I [Knowledge K, Skill S, Value V, Basic level B, Proficient level P, Advanced level A].

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Paramedics

Prehospital care providers who access, treat, monitor, and transport patients using preauthorized clinical care protocols at a proficient level. Paramedics have an expanded scope of practice that builds on the scope of EMTs.

Competencies of paramedics[I, II]

1. Integrate basic, clinical, behavioral, and social sciences in prehospital care practice. [K, P]
2. Triage patients. [K, A]
3. Manage patients with common traumatic, mental, and medical pathologies (Appendix A). [K, P]
4. Identify and manage specific clinical problems. (Appendix B) [K, P]
5. Function in a disaster response system. [K, A]
6. Coordinate response of several public safety responders. [K, P]
7. Ensure scene safety. [K, A]
8. Follow instructions of online medical controllers. [S, P]
9. Carry out protocols of offline medical controllers. [S, P]
10. Use clinical reasoning, decision-making, and problem-solving skills. [S, P]
11. Perform specific clinical interventions (Appendix C). [S, P]
12. Administer medications. (Appendix D). [S, P]
13. Use medical, communication, and information technologies in prehospital care. [S, P]
14. Practice teamwork and inter-professional collaboration. [S, A]
15. Communicate effectively. [S, A]
16. Remain calm during periods of high stress. [V, A]
17. Preserve patient confidentiality. [V, A]
18. Maintain a high level of ethical conduct. [V, A]

I [Knowledge K, Skill S, Value V, Basic level B, Proficient level P, Advanced level A].
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Advanced Paramedics (APs)

Paramedics who have advanced training in prehospital care. Such training may be general or in a specific area of practice in prehospital care such as critical care, tactical response, aero-medical transport, hazardous material response, and others.

Competencies of APs[I, II]

1. Integrate basic, clinical, behavioral, and social sciences in prehospital care practice.[K,A]
2. Triage patients. [K, A]
3. Manage patients with common traumatic, mental, and medical pathologies (Appendix A). [K, A]
4. Identify and manage specific clinical problems. (Appendix B) [K, A]
5. Function in a disaster response system. [K, A]
6. Coordinate the responses of several public safety responders. [K, A]
7. Ensure scene safety. [K, A]
8. Follow instructions of online medical controllers. [S, A]
9. Carry out protocols of offline medical controllers. [S, A]
10. Use clinical reasoning, decision-making, and problem-solving skills. [S, A]
11. Perform specific clinical interventions (Appendix C). [S, A]
12. Administer medications. (Appendix D). [S, P]
13. Use medical, communication, and information technologies in prehospital care. [S, A]
14. Practice teamwork and inter-professional collaboration. [S, A]
15. Communicate effectively. [S, A]
16. Remain calm during periods of high stress. [V, A]
17. Preserve patient confidentiality. [V, A]
18. Maintain a high level of ethical conduct. [V, A]

I [Knowledge K, Skill S, Value V, Basic level B, Proficient level P, Advanced level A].

II Levels are a cooperative concept between prehospital care providers. It is up to the discretion of educators and medical directors to further define the boundaries between levels.

EMS Physicians

Prehospital care providers who have extensive knowledge and experience in providing, supervising, and planning prehospital care. Physicians in EMS have five primary functions. Offline medical controllers (OFMC), who write prehospital care protocols that get executed by prehospital providers. Online medical controllers (ONMC), who provide live instructions on how to care for patients, including the authorization of interfacility transport and the authorization of treatment and release at the scene.

Medical directors (MD), who directly supervise prehospital providers and perform quality assurance activities. Medical oversight officers (MOO), who advocate for prehospital care and engage in healthcare policy activities. Scene responders (SR), who perform highly sophisticated procedures at the scene such as field amputation, care prioritization in disasters, thoracotomy, and other interventions. The highest level of training for EMS physicians is sub-specialization in EMS after acquiring a board certification in emergency medicine. Other physicians who practice in EMS have variable competences based on their training.

Levels of Training required for the Different Roles of Physicians in EMS	
Offline medical controllers	Medical degree with experience or formal intermediate training in emergency medicine or EMS
Online medical controllers	Medical degree with experience or formal intermediate training in emergency medicine or EMS
Medical directors	Medical degree with extensive experience or higher formal training in emergency medicine or EMS
Medical oversight officers	Fellowship in EMS after a board certification in emergency medicine
Scene responders	Fellowship in EMS after a board certification in emergency medicine

Competencies of EMS physicians

1. Design an EMS system that values service and clinical quality, improvement, resilience, accountability, and economy in an emerging healthcare system's context. [MOO]

2. Operate an EMS system that provides triage, pre-arrival instructions, basic and advanced life support, specialized EMS, assessment and treatment, overwhelming response, critical care transport, aeromedical transport, prevention and public education, event response, and community paramedicine in a clinical expert's capacity. [OFMC, ONMC, MD]

3. Assess the three dimensions of an EMS system–healthcare provision, public health, and public safety— and propose interventions to improve its performance. [MOO]

4. Respond to scenes of incidents as an expert healthcare provider with a unique skill set that accelerates patient recovery. [SR]

5. Investigate the validity of new interventions in EMS through research and scholarly activities. [MOO]

Appendix A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Medical problems	B	P	A
Cardiovascular emergencies	B	P	A
Acute coronary syndromes	B	P	A
Atherosclerosis	B	P	A
Angina pectoris	B	P	A
Myocardial infarction	B	P	A
Left ventricular failure and pulmonary edema	B	P	A
Right ventricular failure	B	P	A
Cardiogenic shock	B	P	A
Cardiac tamponade	B	P	A
Thoracic and abdominal aneurysm	B	P	A
Acute arterial occlusion	B	P	A
Noncritical peripheral vascular disorders	B	P	A
Hypertension	B	P	A
Valvular heart disease	B	P	A
Infectious heart disease	B	P	A
Congenital heart disease	B	P	A
Cardiac devices	B	P	A
Termination of resuscitation	B	P	A
Ear, nose, mouth, throat and eye emergencies	B	P	A
Chocking	B	P	A
Foreign body in the nose or ear	B	P	A
Impacted cerumen	B	P	A
Labyrinthitis	B	P	A
Meniere's disease	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Otitis media	B	P	A
Perforated tympanic membrane	B	P	A
Conjunctivitis	B	P	A
Corneal abrasion	B	P	A
Foreign body	B	P	A
Inflammation (Chalazion and Hordeolum)	B	P	A
Glaucoma	B	P	A
Iritis	B	P	A
Papilledema	B	P	A
Retinal detachment	B	P	A
Central retinal artery occlusion	B	P	A
Orbital cellulitis	B	P	A
Epistaxis	B	P	A
Foreign body	B	P	A
Rhinitis	B	P	A
Sinusitis	B	P	A
Toothache and dental abscess	B	P	A
Ludwig's angina	B	P	A
Epiglottitis	B	P	A
Laryngitis	B	P	A
Tracheitis	B	P	A
Oral candidiasis	B	P	A
Peritonsillar abscess	B	P	A
Pharyngitis/tonsillitis	B	P	A
Temporomandibular joint disorders	B	P	A
Respiratory emergencies	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Foreign bodies	B	P	A
Asthma decompensation	B	P	A
Chronic Obstructive Pulmonary Disease (COPD) decompensation	B	P	A
Pneumonia	B	P	A
Adult Respiratory Distress Syndrome (ARDS)	B	P	A
Pulmonary thromboembolism	B	P	A
Upper respiratory infection	B	P	A
Spontaneous pneumothorax	B	P	A
Hyperventilation syndrome	B	P	A
Lung cancer emergencies	B	P	A
Neurologic emergencies	B	P	A
Coma	B	P	A
Stroke	B	P	A
Intracranial hemorrhage	B	P	A
Seizure disorders	B	P	A
Benign headache pathologies	B	P	A
Brain neoplasm and brain abscess emergencies	B	P	A
Degenerative neurological diseases' emergencies	B	P	A
Dementia	B	P	A
Alzheimer's disease	B	P	A
Pick's disease	B	P	A
Huntington's disease	B	P	A
Creutzfeldt-Jakob disease	B	P	A
Muscular dystrophy	B	P	A
Multiple sclerosis	B	P	A
Guillain-Barré syndrome	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Dystonia	B	P	A
Parkinson disease	B	P	A
Cranial nerve disorders	B	P	A
Bell's palsy	B	P	A
Amyotrophic lateral sclerosis	B	P	A
Peripheral neuropathy	B	P	A
Spina bifida	B	P	A
Polio	B	P	A
Cauda equina syndrome	B	P	A
Conus medullaris	B	P	A
Spinal epidural abscess	B	P	A
Endocrinologic emergencies	B	P	A
Diabetes	B	P	A
Hypoglycemia	B	P	A
diabetic ketoacidosis (DKA)	B	P	A
Hyperosmolar Hyperglycemic State (HHS)	B	P	A
Thyroid emergencies	B	P	A
Hypothyroidism	B	P	A
Myxedema	B	P	A
Hyperthyroidism	B	P	A
Graves' disease	B	P	A
Thyrotoxicosis	B	P	A
Cushing syndrome	B	P	A
Addison disease	B	P	A
Allergy and anaphylaxis	B	P	A
Non-systemic allergic reaction	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Anaphylaxis	B	P	A
Gastrointestinal disorders	B	P	A
Undifferentiated abdominal pain	B	P	A
Gastrointestinal bleeding	B	P	A
Acute and chronic gastroenteritis	B	P	A
Inflammatory bowel disease (IBD)	B	P	A
Diverticulosis	B	P	A
Appendicitis	B	P	A
Peptic ulcer disease (PUD)	B	P	A
Bowel obstruction	B	P	A
Pancreatitis	B	P	A
Esophagogastric varices	B	P	A
Hemorrhoids	B	P	A
Cholecystitis	B	P	A
Acute hepatitis	B	P	A
Hereditary hemochromatosis	B	P	A
Renal and genitourinary disorders	B	P	A
Renal disorders	B	P	A
Renal calculi	B	P	A
Acute and chronic renal failure	B	P	A
Dialysis emergencies	B	P	A
Vascular access problems	B	P	A
Hemorrhage control	B	P	A
Hypotension	B	P	A
Chest pain	B	P	A
Hyperkalemia	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Disequilibrium syndrome	B	P	A
Air embolism	B	P	A
Genitourinary	B	P	A
Urinary retention	B	P	A
Urinary tract infection (UTI)	B	P	A
Pyelonephritis	B	P	A
Epididymitis	B	P	A
Fournier's gangrene	B	P	A
Phimosis and paraphimosis	B	P	A
Priapism	B	P	A
Benign prostatic hypertrophy	B	P	A
Testicular masses	B	P	A
Testicular torsion	B	P	A
Gynecologic emergencies	B	P	A
Pelvic inflammatory disease (PID)	B	P	A
Bartholin's abscess	B	P	A
Vaginitis	B	P	A
Ruptured ovarian cyst	B	P	A
Ovarian torsion	B	P	A
Cystitis	B	P	A
Dysmenorrhea	B	P	A
Mittelschmerz	B	P	A
Endometriosis	B	P	A
Ectopic pregnancy	B	P	A
Vaginal bleeding	B	P	A
Uterine prolapse	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Vaginal foreign body	B	P	A
Obstetrics	B	P	A
Normal pregnancy	B	P	A
Normal delivery	B	P	A
Complications of pregnancy	B	P	A
Hyper emesis gravidarum	B	P	A
Early pregnancy bleeding	B	P	A
Rh sensitization	B	P	A
Preeclampsia, eclampsia and HELLP	B	P	A
Abruptio placentae	B	P	A
Placenta previa	B	P	A
Cardiac arrest in pregnancy	B	P	A
Complications of delivery	B	P	A
Uterine rupture	B	P	A
Breech presentation	B	P	A
Cord prolapse	B	P	A
Premature birth	B	P	A
Uterine Inversion	B	P	A
Postpartum hemorrhage	B	P	A
Premature rupture of membranes	B	P	A
Amniotic fluid embolism	B	P	A
Special populations	B	P	A
Neonatal care	B	P	A
Normal neonate care	B	P	A
Neonatal resuscitation	B	P	A
Congenital anomalies	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Anomalies of the airway	B	P	A
Choanal atresia	B	P	A
Tracheoesophageal fistula	B	P	A
Cleft lip and cleft palate	B	P	A
Pierre robin syndrome	B	P	A
Anomalies of the heart	B	P	A
Cyanotic heart diseases	B	P	A
Noncyanotic heart diseases	B	P	A
Abdomen and lower back anomalies	B	P	A
Pyloric stenosis	B	P	A
Diaphragmatic hernia	B	P	A
Omphalocele	B	P	A
Pediatrics	B	P	A
Respiratory illnesses	B	P	A
Pertussis	B	P	A
Croup	B	P	A
Bronchiolitis	B	P	A
Epiglottitis	B	P	A
Bronchopulmonary dysplasia	B	P	A
Shock	B	P	A
Seizure	B	P	A
Febrile seizures	B	P	A
DKA and hypoglycemia	B	P	A
Infections	B	P	A
Meningitis	B	P	A
Dehydration	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Sudden Unexplained Infant Death (SUID)	B	P	A
Brief Resolved Unexplained Event (BRUE)	B	P	A
Children with special needs (technology dependet)	B	P	A
Geriatrics	B	P	A
Special considerations in elder care	B	P	A
Challenged patients	B	P	A
Hearing impairment	B	P	A
Visual impairment	B	P	A
Speech impairment	B	P	A
Obesity	B	P	A
Neuromotor impairment	B	P	A
Paraplegia	B	P	A
Quadriplegia	B	P	A
Cerebral palsy	B	P	A
Cystic fibrosis	B	P	A
Multiple sclerosis	B	P	A
Muscular dystrophy	B	P	A
Poliomyelitis	B	P	A
Myasthenia gravis	B	P	A
Financial challenges	B	P	A
Cultural challenges	B	P	A
Mental impairment	B	P	A
Down syndrome	B	P	A
Abuse and assault	B	P	A
Child abuse	B	P	A
Elder abuse	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Domestic violence	B	P	A
Sexual assault	B	P	A
Forensic considerations during transport	B	P	A
Hematologic emergencies	B	P	A
Anemia	B	P	A
Leukemia	B	P	A
Leukopenia	B	P	A
Lymphomas	B	P	A
Polycythemia	B	P	A
Disseminated intravascular coagulopathy	B	P	A
Hemophilia	B	P	A
Sickle cell disease	B	P	A
Multiple myeloma	B	P	A
Nontraumatic Musculoskeletal Disorders	B	P	A
Osteomyelitis	B	P	A
Bone tumors' emergencies	B	P	A
Low back pain	B	P	A
Intervertebral disc disorders	B	P	A
Arthritis	B	P	A
Osteoarthritis	B	P	A
Rheumatoid arthritis	B	P	A
Septic arthritis	B	P	A
Gout	B	P	A
Myalgia	B	P	A
Myopathies	B	P	A
Chronic Fatigue Syndrome	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Bursitis	B	P	A
Muscle Strains	B	P	A
Tendinosis	B	P	A
Carpal tunnel syndrome	B	P	A
Ulnar nerve entrapment	B	P	A
Fasciitis	B	P	A
Gangrene	B	P	A
Paronychia	B	P	A
Flexor Tenosynovitis	B	P	A
Shock	B	P	A
Infections	B	P	A
HIV	B	P	A
Hepatitis	B	P	A
TB	B	P	A
Meningitis	B	P	A
Infective endocarditis	B	P	A
Influenza	B	P	A
Mononucleosis	B	P	A
Tetanus	B	P	A
Rabies	B	P	A
Malaria	B	P	A
Dengue fever	B	P	A
Yellow fever	B	P	A
Rubella	B	P	A
Rubeola	B	P	A
Mumps	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Chickenpox	B	P	A
Sexually transmitted diseases	B	P	A
Syphilis	B	P	A
Gonorrhea	B	P	A
Chlamydia	B	P	A
Herpes simplex virus	B	P	A
Lice	B	P	A
Scabies	B	P	A
Mental problems	B	P	A
Suicide	B	P	A
Cognitive disorders	B	P	A
Delirium	B	P	A
Dementia	B	P	A
Autism spectrum disorder	B	P	A
Schizophrenia	B	P	A
Anxiety disorders	B	P	A
Generalized anxiety disorder	B	P	A
Phobia	B	P	A
Obsessive-Compulsive Disorder (OCD)	B	P	A
Posttraumatic syndrome	B	P	A
Mood disorders	B	P	A
Depression	B	P	A
Bipolar disorder	B	P	A
Substance-related disorders	B	P	A
Somatoform disorders	B	P	A
Factitious disorders	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Dissociative disorders	B	P	A
Eating disorders	B	P	A
Impulse control disorders	B	P	A
Personality disorders	B	P	A
Trauma	B	P	A
Systemic approach to multiple trauma	B	P	A
Penetrating and blunt trauma by body region	B	P	A
Head trauma	B	P	A
Spine trauma	B	P	A
Thoracic trauma	B	P	A
Abdominal trauma	B	P	A
Pelvic trauma	B	P	A
Genitourinary trauma	B	P	A
Peripheral vascular injuries	B	P	A
Oromaxillofacial trauma	B	P	A
Dental trauma	B	P	A
Neck trauma	B	P	A
Trauma to ears, nose and eyes	B	P	A
Soft tissue trauma	B	P	A
Trauma to peripheral limbs	B	P	A
Upper limbs	B	P	A
Lower limbs	B	P	A
Soft tissue trauma	B	P	A
Burns	B	P	A
Ballistics and gunshot wounds	B	P	A
Trauma in special populations	B	P	A

	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Immunocompromised patients and organ transplant	B	P	A
Scleroderma	B	P	A
Systemic lupus erythematosus (SLE)	B	P	A
Rejection	B	P	A
Drug related toxicity	B	P	A
Environmental problems	B	P	A
Heat related illnesses	B	P	A
Hypothermia	B	P	A
Dysbarism	B	P	A
High altitude illnesses	B	P	A
Bites and stings	B	P	A
Drowning	B	P	A

Appendix B

	Emergency Medical Dispatchers (EMD)	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Fever	B	B	P	A	A
Headache	B	B	P	A	A
Weakness	B	B	P	A	A
Cyanosis	B	B	P	A	A
Dyspnea	B	B	P	A	A
Syncope	B	B	P	A	A
Altered mental status, confusion, dizzi-ness, and vertigo	B	B	P	A	A
Red and painful eye	B	B	P	A	A
Sore throat and difficulty swallowing	B	B	P	A	A
Hemoptysis	B	None	P	A	A
Chest pain	B	B	P	A	A
Abdominal pain	B	None	P	A	A
Jaundice	B	None	P	A	A
Nausea and vomiting	B	None	P	A	A

	Emergency Medical Dispatchers (EMD)	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)
Pelvic pain and or vaginal bleeding	B	None	P	A	A
Back pain	B	None	P	A	A
Cardiopulmonary arrest	B	B	P	A	A
confirmation of clear and old death	B	B	P	A	A
crime scene handling	B	None	P	A	A
Islamic death culture	B	B	P	A	A
Toxic exposure decontamination	B	B	P	A	A
Toxic exposure decontamination					
Vital signs measurement interpretation	B	B	P	A	A
Glucose check interpretation	B	B	P	A	A
Implanted devices	B	B	P	A	A
Ventilators	None	None	B	P	A
Suction	B	None	P	A	A
Geriatric, bariatric, and pediatricmobility devices	None	None	B	P	A

Appendix C

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Manage airway					
Simple airway maneuvers					
Head tilt chin left	B	P	A	A	A
Jaw thrust	B	P	A	A	A
Finger sweep	B	P	A	A	A
Simple airway adjuncts					
Face mask	None	P	A	A	A
Non-rebreather	None	P	A	A	A
Nebulization mask	None	P	A	A	A
Venturi mask	None	P	A	A	A
Nasal cannula	None	P	A	A	A
Nasopharyngeal airway	None	P	A	A	A
Oropharyngeal airway	None	P	A	A	A
Advanced airway devices					

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Laryngeal mask airway	None	P	A	A	A
Extra-glottic airway devices	None	P	A	A	A
Advanced airway maneuvers					
Rapid sequence intubation	None	B-Asisst	P	A	A
Endotracheal intubation using direct and video laryngoscopy	None	B-Asisst	P	A	A
Needle cricothyrotomy	None	None	B-Asisst	P	A
Open cricothyrotomy	None	None	B-Asisst	P	A
Gum elastic bogie	None	B-Asisst	P	A	A
Confirmation of correct airway device placement					
Esophageal Detector Device (EDD)	None	B-Asisst	P	A	A
Capnography	None	P	P	A	A
Capnometry	None	P	P	A	A
Tracheostomy care	None	B-Asisst	P	A	A
Manage ventilation					
Bag-valve-mask ventilation	None	P	A	A	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Mechanical ventilator setting and operation	None	None	P	A	A
Apneic oxygenation	None	None	B-Assist	P	A
High flow oxygen treatment	None	None	B-Assist	P	A
Positive airway pressure ventilation	None	B-Assist	P	A	A
Jet ventilation	None	None	B-Assist	P	A
Maintain oxygen cylinders, regulators, flow meters and tubing	None	P	A	A	A
Suction the upper airway	None	P	A	A	A
Suction an endotracheal tube	None	None	P	A	A
Manage pain					
Use the Numerical Rating Scale (NRS)	None	P	A	A	A
Use the Visual Analogue Scale (VAS)	None	P	A	A	A
Use the Verbal Rating Scale (VRS)	None	P	A	A	A
Use the Wong-Baker FACES pain scale	None	P	A	A	A
Assess pain in cognitively impaired patient	None	P	A	A	A
Manage pain non-pharmacologically by repositioning	B	P	A	A	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Manage pain non- pharmacologically by reassurance	B	P	A	A	A
Administer pain medications	None	B-Asisst	P	A	A
Perform cardiopulmonary resuscitation					
In adults	B	A	A	A	A
In pediatrics	B	A	A	A	A
In neonates	B	P	A	A	A
In special population. (Pregnancy, palliation and trauma)	B	P	A	A	A
Recovery position	B	A	A	A	A
Manual chest compression	B	A	A	A	A
Mechanical chest compression	None	A	A	A	A
Heimlich maneuver	B	A	A	A	A
Needle decompression for pneumothorax	None	P	P	A	A
Perform defibrillation and cardiac pacing					
Pad and paddle defibrillation	None	B-Asisst	P	A	A
Automated External Defibrillation (AED)	B	A	A	A	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Transcutaneous cardiac pacing	None	B-Asisst	P	A	A
Obtain vital signs					
Heart rate	B	P	A	A	A
Respiratory rate	B	P	A	A	A
Temperature	B	P	A	A	A
Pulse oximetry	B	P	A	A	A
Blood pressure	B	P	A	A	A
Calculate Mean Arterial Pressure (MAP)	None	P	A	A	A
Capillary refill time	None	P	A	A	A
Obtain blood glucose	B	P	A	A	A
Peak flow measurement	None	B-Asisst	P	A	A
Obtain electrocardiograms (ECG)					
3 lead ECG	None	P	A	A	A
12 lead ECG	None	P	A	A	A
Right-sided ECG	None	B-Asisst	P	A	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Posterior ECG	None	B-Asisst	P	A	A
Recognize ST-Elevation Myocardial Infarction (STEMI)	None	B-Asisst	P	A	A
Interpret and ECG	None	B-Asisst	P	A	A
Examine patients					
Inspection	B	P	A	A	A
Auscultation	None	P	A	A	A
Percussion	None	P	A	A	A
Palpation	None	P	A	A	A
AVPU score calculation	B	A	A	A	A
GCS calculation	None	A	A	A	A
Pupillary assessment	None	A	A	A	A
Assess motor and sensory function; and reflexes	None	P	A	A	A
Assess co-ordination, cerebellar function, abnormal movement and cranial nerves	None	P	A	A	A
Perform FAST-ED neurological examination	None	P	P	A	A
Administer medications (under the direction of medical control)					

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Intravenous fluids	None	P	A	A	A
Intravenous	None	P	P	A	A
Intraosseous	None	P	P	A	A
Intramuscular	None	P	P	A	A
Subcutaneous	None	None	P	A	A
Sublingual	None	B	P	A	A
Rectally	None	None	P	A	A
Orally	B	P	A	A	A
Nebulization	None	P	A	A	A
Intranasal	None	P	P	A	A
Infusion pumps	None	None	P	A	A
Access implanted access devices	None	None	P	A	A
Auto injectors	B	P	A	A	A
Topical or transdermal	None	P	A	A	A
Mix drugs and prepare infusions	None	None	B-Asisst	P	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Access the patient circulation					
Intravenous	None	P	A	A	A
Intraosseous	None	P	A	A	A
Manage failed peripheral vein cannulation	None	None	P	A	A
Immobilize a broken limb					
Splints	None	P	A	A	A
Slings	None	P	A	A	A
Box splints	None	P	A	A	A
Vacuum splints	None	P	A	A	A
Buddy strapping	None	P	A	A	A
Donway splint	None	P	A	A	A
Sager splint	None	P	A	A	A
SAM splints	None	P	A	A	A
SAM sling	None	P	A	A	A
Extract, immobilize and transport patients					

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Insert nasogastric or orogastric tubes	None	B-Asisst	P	A	A
Insert foley catheter	None	B-Asisst	P	A	A
Ambulance stretchers	B-Asisst	P	A	A	A
Incubators	None	None	B-Asisst	P	A
Stair's wheelchair	B-Asisst	P	A	A	A
Backboards and straps	B-Asisst	P	A	A	A
Vacuum mattress	None	P	A	A	A
Apply pelvic binder	None	P	A	A	A
Manually stabilize the neck	None	P	A	A	A
Apply cervical collars	None	P	A	A	A
Spinal motor restriction	None	P	A	A	A
Manual left	B-Asisst	P	A	A	A
Single-handed left	None	P	A	A	A
Left in a confined space	None	P	A	A	A
Litters	None	P	A	A	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Mechanical aids	None	P	A	A	A
Physical restraints	None	P	A	A	A
Secure medical equipment during transport	None	P	A	A	A
Control bleeding					
Epistaxis control	B	P	P	P	A
Direct pressure	B	P	A	A	A
Tourniquets	B	P	A	A	A
Indirect pressure	None	P	A	A	A
Hemostatic dressings	None	P	A	A	A
While an object is impaled	None	P	A	A	A
Manage burns and toxic exposures					
Cooling	B	P	A	A	A
Dressing	None	P	A	A	A
Removal of source	B	P	A	A	A
Chemical burns decontamination	B	P	A	A	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Perform an initial decontamination and washing	None	P	A	A	A
Irrigate the eye	B	P	A	A	A
Use disaster equipment					
Tarps	None	P	A	A	A
Tags	None	P	A	A	A
Positive pressure personnel suits	None	None	B-Asisst	P	A
Maintain medical equipment					
Transmit clinical data including videos	B	P	A	A	A
Monitor and maintain a chest tube (without placement)	None	None	P	A	A
Recognize faulty devices	None	B	P	A	A
Perform regular checks and tests	None	B	P	A	A
Observe wear and tear	None	B	P	A	A
Store drugs correctly	None	B	P	A	A
Assist in delivery					
Spontaneous vaginal delivery	B	P	A	A	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Complicated delivery	None	B-Asisst	P	A	A
Drive ambulances safely	P-optional	A	A	A	A
Use radio communication devices	P-optional	A	A	A	A
Perform hand hygiene	P	A	A	A	A
Wear Personal Protective Equipment (PPE)	P	A	A	A	A
Manage medical waste and sharps	B	A	A	A	A
Approach an aircraft	None	P	A	A	A
Setup a landing zone	None	P	A	A	A
Advanced interventions					
Thoracotomy	None	None	B-Asisst	B-Asisst	A
Central venous access	None	None	B-Asisst	B-Asisst	A
ECMO initiation	None	None	B-Asisst	B-Asisst	A
Burr hole	None	None	B-Asisst	B-Asisst	A
Amputation	None	None	B-Asisst	B-Asisst	A
Ultrasound usage	None	None	B-Asisst	B-Asisst	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT))	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Chest tube insertion	None	None	B-Asisst	B-Asisst	A
Local and regional nerve blocks	None	None	B-Asisst	B-Asisst	A
Abdominal paracentesis	None	None	B-Asisst	B-Asisst	A
Suprapubic catheterization	None	None	B-Asisst	B-Asisst	A
Uterine tamponade insertion	None	None	B-Asisst	B-Asisst	A
Lateral canthotomy	None	None	B-Asisst	B-Asisst	A
Perimortem C-section	None	None	B-Asisst	B-Asisst	A
Cardiac paracentesis	None	None	B-Asisst	B-Asisst	A
Needle joint aspiration	None	None	B-Asisst	B-Asisst	A
Eye foreign body removal	None	None	B-Asisst	B-Asisst	A
Suturing	None	None	B-Asisst	B-Asisst	A
Dislocation reduction	None	None	B-Asisst	B-Asisst	A
Fracture reduction if pulse not palpable	None	None	P	P	A
Conscious sedation	None	None	B-Asisst	B-Asisst	A
Peritonsillar abscess drain	None	None	B-Asisst	B-Asisst	A

Abscess incision and drain or aspiration	None	None	B-Asisst	B-Asisst	A

	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Physician scene Responders
Wound debridement	None	None	B-Asisst	B-Asisst	A
Transvenous pacing	None	None	B-Asisst	B-Asisst	A
Lumbar puncture	None	None	B-Asisst	B-Asisst	A
Penile blood aspiration	None	None	B-Asisst	B-Asisst	A
Arterial line insertion	None	None	B-Asisst	B-Asisst	A
Ear irrigation	None	None	B-Asisst	B-Asisst	A
Foreign body removal	None	None	B-Asisst	B-Asisst	A
Esophageal tubes insertion (for active bleeding)	None	None	B-Asisst	B-Asisst	A
Nasal packing	None	P	P	P	A
Using epistaxis control devices	None	P	P	P	A
Tooth stabilization	None	None	B-Asisst	B-Asisst	A
Magill forceps usage	None	None	B-Asisst	B-Asisst	A
Highly advanced airway devices	None	None	B-Asisst	B-Asisst	A

Appendix D

Administer medications (formulary)	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Online medical controllers[I]	Physician scene Responders[II]
Activated Charcoal			X	X	X	X
Adenosine			X	X	X	X
Albuterol		X	X	X	X	X
Amiodarone			X	X	X	X
Amyl Nitrite			X*	X	X	X
Aspirin	X	X	X	X	X	X
Atropine			X	X	X	X
Calcium Chloride			X	X	X	X
Calcium Gluconate			X	X	X	X
Clopidogrel			X	X	X	X
Dexamethasone			X	X	X	X
Dextrose 50%			X	X	X	X
Dextrose 25%			X	X	X	X

I Additional medications can be used by online medical controllers based on the discretion of the medical director of the EMS system.
II Additional medications can be used by physician scene Responders based on the discretion of the medical director of the EMS system.
X* Medicines can only be used after contacting medical control

Administer medications (formulary)	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Online medical controllers I	Physician scene Responders II
Dextrose 10%		X	X	X	X	X
Diazepam			X	X	X	X
Diclofenac			X	X	X	X
Diltiazem			X	X	X	X
Diphenhydramine			X	X	X	X
Dopamine			X	X	X	X
Epinephrine autoinjector		X	X	X	X	X
Epinephrine			X	X	X	X
Epinephrine nebulized (Racemic)			X	X	X	X
Etomidate			X	X	X	X
Fentanyl			X	X	X	X
Furosemide			X	X	X	X
Glucagon			X	X	X	X
Granisetron			X	X	X	X
Haloperidol			X	X	X	X

Administer medications (formulary)	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Online medical controllers I	Physician scene Responders II
Heparin			X	X	X	X
Hydrocortisone			X	X	X	X
Hydroxocobalamin			X*	X	X	X
Hypertonic Saline		X	X	X	X	X
Ibuprofen		X*	X	X	X	X
Ipratropium Bromide			X	X	X	X
Ketamine			X	X	X	X
Ketorolac			X	X	X	X
Levetiracetam			X	X	X	X
Lidocaine			X	X	X	X
Lorazepam			X	X	X	X
Lornoxicam			X	X	X	X
Magnesium Sulfate			X	X	X	X
Methylprednisolone			X	X	X	X
Metoclopramide			X	X	X	X

Administer medications (formulary)	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Online medical controllers I	Physician scene Responders II
Metoprolol				X	X	X
Midazolam			X	X	X	X
Morphine			X	X	X	X
Naloxone		X	X	X	X	X
Nitroglycerin			X	X	X	X
Norepinephrine			X	X	X	X
Normal saline		X	X	X	X	X
Ondansetron			X	X	X	X
Oral glucose		X	X	X	X	X
Oxygen		X	X	X	X	X
Paracetamol		X*	X	X	X	X
Phenylephrine spray		X	X	X	X	X
Prednisolone			X	X	X	X
Procainamide			X	X	X	X
Prochlorperazine			X	X	X	X

Administer medications (formulary)	First Medical Responder (FMR)	Emergency Medical Technician (EMT)	Paramedics	Advanced Paramedics (AP)	Online medical controllers I	Physician scene Responders II
Sodium bicarbonate			X	X	X	X
Sodium Nitrite			X*	X	X	X
Sodium Thiosulfate			X*	X	X	X
Sotalol			X	X	X	X
Tetracaine topical			X	X	X	X
Tranexamic acid			X	X	X	X
Succinylcholine			X	X	X	X
Rocuronium			X	X	X	X
Lidocaine jelly 2%			X	X	X	X

Comparison of competencies between all prehospital care providers

	Emergency Medical (EMD)	First Medical Responders (FMR)	Emergency Medical (EMT)	Paramedics	Advanced Paramedics (AP)	Offline Controllers	Online Controllers	Medical Directors	Medical Officers	Scene Responders
Triage patients	P	B	P	A	A	Optional	A	A	A	A
Translate event description to a response code	A					Optional	Optional	Optional	A	A
Interpret medical terminology and, basic physiologic and pathologic concepts		B	P	A	A	Optional	A	A	A	A
Relay preformulated instructions to callers including resuscitation procedures	A					Optional	Optional	Optional	A	A
Coordinate response of several public safety responders	P		B	P	A	Optional	A	A	A	A
Ensure scene safety	P	B	A	A	A	Optional	A	A	A	A
Integrate basic, clinical, behavioral and social sciences in prehospital care practice	B		P	P	A	Optional	A	A	A	A
Manage patients with common traumatic, mental and medical pathologies (Appendix A)			B	P	A	A	A	A	A	A
Identify and manage specific clinical problems. (Appendix B)		B	P	P	A	Optional	A	A	A	A
Function in a disaster response system			B	P	A	Optional	A	A	A	A
Communicate with fluent linguistic ability	A					A	A	A	A	A
Coach callers on providing prearrival instructions	P					Optional	Optional	Optional	A	A
Aid other prehospital providers in logistics of care provision	P	B				Optional	Optional	Optional	A	A
Follow instructions of online medical controllers			B	P	A	Optional	Optional	Optional	A	A

	Emergency Medical (EMD)	First Medical Responders (FMR)	Emergency Medical (EMT)	Paramedics	Advanced Paramedics (AP)	Offline Controllers	Online Controllers	Medical Directors	Medical Officers	Scene Responders
Carry out protocols of offline medical controllers			B	P	A	Optional	Optional	Optional	A	A
Use clinical reasoning, decision-making, and problem-solving skills			B	P	A	Optional	A	A	A	A
Perform specific clinical interventions (Appendix C)		B	P	P	A	Optional	Optional	Optional	A	A
Adminster medications -specific to each profission- (Appendix D)		B	P	A	A	A	A	A	A	A
Use medical, communication and information technologies in prehospital care	P		P	P	A	Optional	A	A	A	A
Practice teamwork and inter-professional collaboration		B	A	A	A	A	A	A	A	A
Communicate effectively	P	B	A	A	A	A	A	A	A	A
Remain calm during periods of high stress	A	A	A	A	A	A	A	A	A	A
Preserve patient confidentiality	A	A	A	A	A	A	A	A	A	A
Maintain a high level of ethical conduct	A	A	A	A	A	A	A	A	A	A
Control callers who are emotionally disturbed	A					Optional	Optional	Optional	A	A
Design an EMS system that values service and clinical quality, improvement, resilience, accountability, and economy in an emerging healthcare system's context	NONE	NONE	NONE	NONE	NONE	B	B	P	A	A

	Emergency Medical (EMD)	First Medical Responders (FMR)	Emergency Medical (EMT)	Paramedics	Advanced Paramedics (AP)	Offline Controllers	Online Controllers	Medical Directors	Medical Officers	Scene Responders
Operate an EMS system that provides triage, pre-arrival instructions, basic and advanced life support, specialized EMS, assessment and treatment, overwhelming response, critical care transport, aeromedical transport, prevention and public education, event response, and community paramedicine in a clinical expert's capacity	NONE	NONE	NONE	NONE	NONE	P	P	A	A	A
Assess the three dimensions of an EMS system–healthcare provision, public health, and public safety–and propose interventions to improve its performance	NONE	NONE	NONE	NONE	NONE	B	B	P	A	A
Respond to scenes of incidents as an expert healthcare provider with a unique skill set that accelerates patients' recovery	NONE	NONE	NONE	NONE	NONE	B	B	B	A	A
Investigate the validity of new interventions in EMS through research and scholarly activities	NONE	NONE	NONE	NONE	NONE	P	P	P	A	A