GLOBAL EMERGENCY MEDICAL REGISTRY

ADVANCED EMERGENCY MEDICAL TECHNICIAN - Minimum Educational and Examination Objectives:

Minimum Educational and Examination Objectives:

The Global Emergency Medical Registry (GEMR) establishes minimum standard educational objectives for the registry levels. The following are the current minimum educational objectives for an initial Advanced Emergency Medical Technician (AEMT) education program, the registry written examinations and psychomotor examinations are created from these objectives.

Advanced Emergency Medical Technician Educational Objectives:

1. Demonstrate the ability to comprehend, apply and evaluate the clinical information relative to his/her role as an entry-level advanced EMT
2. Demonstrate the ability to comprehend, apply and evaluate the clinical information relative to his/her role as an entry-level advanced EMT
3. Describe the benefits of continuing education.
4. Differentiate among training and roles and responsibilities of the recognized levels of certification: Emergency Medical Responder, Emergency Medical Technician, Advanced Emergency Medical Technician, Paramedic, and Advanced Practice Paramedic.
5. List the benefits of membership in professional EMS organizations.
6. Differentiate among professionalism and professional licensure, certification, registration, and credentialing.
7. Describe the AEMT's role in patient care situations.
8. Describe the benefits of each component of off-line (indirect) and online (direct) medical direction at the AEMT level of care.
9. Outline the role and components of an effective continuous quality improvement (CQI) program for the AEMT level of care.
10. Explain what the International Liaison Committee on Resuscitation (ILCOR) is and describe the process of science recommendations.
11. Describe EMS activities that pose a high risk for patients.
12. Describe actions the AEMT may take to reduce the chance of errors related to patient care, medication administration, and vascular access.
13. List measures to take to reduce the risk of infectious disease exposure at the AEMT level of care.
14. Outline actions to be taken following a significant exposure to a patient's blood or other body fluids.
15. Define injury.
16. Describe public health goals and activities.
17. Outline the aspects of the emergency medical services system that make it a desirable resource for involvement in public health activities.
18. List situations in which AEMT's may participate in illness prevention.

19. Differentiate among primary, secondary, and tertiary health prevention activities.
20. Describe the uses of the patient care report.
21. Outline the components of an accurate, thorough patient care report.
22. Describe the elements of a properly written emergency medical services (EMS) document.
23. Describe an effective system for documenting the narrative section of a prehospital patient care report.
24. Describe the appropriate method to make revisions or corrections to the patient care report.
25. Recognize consequences that may result from inappropriate documentation.
26. Outline the phases of communication that occur during a typical emergency medical services (EMS) event.
27. Describe the role of communications in EMS.
28. Define common EMS communications terms.
29. Describe how to communicate effectively using the primary modes of EMS communication.
30. Outline the elements of an EMS communications system.
31. Describe the characteristics of EMS communications operation modes.
32. Describe the role of dispatching as it applies to prehospital emergency medical care.
33. Outline techniques for relaying EMS communications clearly and effectively.
34. Outline procedures for EMS communications.
35. Describe the AEMT's responsibilities regarding patient confidentiality.
36. Outline the process for obtaining expressed, informed, and implied consent.
37. Describe legal complications relating to consent.
38. Describe actions to be taken in a refusal-of-care situation.
39. Describe legal considerations in situations that require the use of force.
40. Describe legal considerations related to patient transportation.
41. Outline legal implications related to resuscitation and patient death.
42. List the AEMT's responsibilities at a crime scene.
43. Distinguish between professional, legal, and moral accountability.
44. Outline strategies to use to resolve ethical conflicts.
45. Describe the role of ethical tests in resolving ethical dilemmas in health care.
46. Discuss specific prehospital ethical issues, including allocation of resources, decisions surrounding resuscitation, confidentiality, and consent.
47. Explain the importance of EMS research.
48. Define evidence-based practice.
49. Describe criteria to evaluate when reading a research paper.
50. Interpret selected examples of medical prefixes, root words, combining vowels, and suffixes.
51. Use accepted medical abbreviations appropriately.

52. Discuss the importance of human anatomy as it relates to the AEMT profession.
53. Properly interpret anatomical directional terms and body planes.
54. List the structures that compose the axial and appendicular regions of the body.
55. Define the divisions of the abdominal region.
56. Describe the vessels of the arm and leg.
57. Describe the impact of stress on the body's response to illness or injury.
58. List the normal vital signs and body system characteristics of the newborn, neonate, infant, toddler, preschooler, school-age child, adolescent, young adult, middle-aged adult, and older adult.
59. Explain what a drug is.
60. Outline drug standards and legislation and the enforcement agencies pertinent to the AEMT profession.
61. Distinguish between characteristics of routes of AEMT's responsibilities to understand AEMT drug profiles.
62. Identify the steps in the calculation of drug dosages.
63. List measures for ensuring the safe administration of medications.
64. Describe actions AEMT's should take if a medication error occurs.
65. Identify special considerations in the administration of pharmacological agents to pediatric patients.
66. List indication and contraindication for the administration of crystalloid intravenous fluids IV or IO.
67. List indications and contraindications for the administration of Adrenaline (Epinephrine) 1:1000 IM or Adrenaline (Epinephrine) 1:10,000 IV or IO for anaphylactic shock or cardiac arrest.
68. List indications and contraindications for the administration of Naloxone hydrochloride IM, IO, or IV.
69. List indications and contraindications for the administration of Hypertonic glucose IV.
70. List indications and contraindications for the administration of Atropine IV for symptomatic bradycardia or organophosphate toxicity.
71. List indications and contraindications for the administration of nebulized bronchodilator agents for known asthmatic and chronic obstructive pulmonary disease (COPD) patients suffering from suspected bronchospasm.
72. List indications and contraindications for the administration of Acetaminophen PO, PR, or IV for acute pain or fever.
73. List indications and contraindications for the administration of Nitrous Oxide INH for pain.
74. List indications and contraindications for the administration of Methoxyflurane INH through manufacturer administration device.
75. List indications and contraindications for the administration of Ketamine IM for pain.
76. Describe the safe disposal of contaminated items and sharps.

77. Describe the anatomy of the airway and respiratory structures.
78. Distinguish between respiration, pulmonary and ventilation.
79. Be able to place and operate electronic waveform capnography monitoring. (ETCO2)
80. Be able to identify the following waveform capnography circumstances: loss of airway, waveform during cardiac arrest, normal waveform, bronchospasm waveform.
81. Describe parameters for delivering analgesic: Aspirin PO, Ibuprofen PO, Acetaminophen PO, Methoxyflurane INH.
82. Describe parameters for delivering Anti-inflammatory: Aspirin PO, Ibuprofen PO
83. Describe parameters for delivering Antihypoglycemics: Glucose gel PO, Glucagon IM
84. Describe parameters for delivering Nebulized medications: Inhaled bronchodilators
85. Describe the indications, contraindications, and techniques for delivering analgesic: Aspirin PO, Ibuprofen PO, Acetaminophen PO, Methoxyflurane INH.
86. Describe the indications, contraindications, and techniques to deliver: Epinephrine IM for Anaphylaxis
87. Describe the indications, contraindications, and techniques to deliver Antidotes: Naloxone hydrochloride IN
88. Describe the indications, contraindications, and techniques to deliver EMT – Assisted Medications
89. Describe the indications, contraindications, and techniques to deliver EMT – Assisted Nitroglycerin PO
90. Describe the anatomy and physiology of peripheral veins, including location, characteristics, and suitability for IV access.
91. Locate and identify appropriate veins for peripheral IV access, considering factors like patency, size, and location.
92. Demonstrate proficiency in inserting ten (10) peripheral IV catheters in human subjects and successfully administer 10 ml of saline through a properly established saline lock and extension tubing through catherter, using proper technique, including site preparation, insertion angle, and stabilization.
93. Identify potential complications of IV therapy, including infiltration, extravasation, and infection, and implement appropriate nursing interventions.
94. Apply and maintain strict aseptic technique during IV insertion and maintenance procedures to minimize the risk of infection.
95. Identify and utilize various IV equipment and supplies, including catheters, extension sets, and dressing materials.
96. Understand the principles of IV solution and medication administration, including calculations, infusion rates, and compatibility.
97. Document IV insertion procedures, including date, time, site, catheter gauge, and any complications, according to established guidelines.
98. Recognize the legal and ethical considerations surrounding IV therapy, including informed consent, patient rights, and liability.

99. Explain the mechanics of ventilation and respiration.
100. Explain the process of exchange and transport of gases in the body.
101. Describe the indications, contraindications, and techniques to deliver supplemental oxygen.
102. Describe the use of apneic oxygenation.
103. Describe the use of Bag-Valve-Mask (BVM) Device.
104. Demonstrate the proper use of basic airway devices for airway patency
105. Describe and demonstrate effective techniques to place and verify proper placement of supraglottic airway device.
106. Given a patient scenario, identify possible alterations in oxygenation and ventilation and appropriate interventions to treat those alterations.
107. Identify additional resources that may be needed to manage complex medical or trauma patients and multiple patient incidents.
108. Define therapeutic communication.
109. List the elements of effective therapeutic communication.
110. Identify internal factors that influence effective communication.
111. Identify external factors that influence effective communication.
112. Explain the elements of an effective patient interview.
113. Summarize strategies for gathering appropriate patient information.
114. Demonstrate the AEMT patient assessment.
115. Describe findings in the primary assessment that may indicate a life-threatening condition.
116. Discuss interventions for life-threatening conditions that are identified in the primary assessment.
117. Distinguish priorities in the care of the medical versus trauma patient
118. Define the purpose of the secondary assessment.
119. Describe physical examination techniques commonly used in prehospital settings.
120. Describe the examination equipment commonly used in the prehospital setting.
121. Outline the process of patient reassessment.
122. Describe differences to the physical examination when assessing children.
123. Describe differences to the physical examination when assessing older adults.
124. List the key elements of AEMT practice.
125. Describe the normal anatomy and physiology of the heart.
126. Effectively use a manual defibrillator.
127. Effectively lead a ventricular fibrillation cardiac arrest simulation.
128. Be able to attach and acquire a 12 lead ECG tracing.
129. Outline the assessment process for the patient who has a respiratory emergency.
130. Describe the anatomy and physiology of the nervous system.
131. Describe the assessment of a patient with a nervous system disorder.

132. Describe the signs and symptoms, and specific management techniques for each of the following neurologic disorders: coma, stroke and intracranial hemorrhage, seizure disorders, headaches.
133. Discuss key signs and symptoms, patient assessment, and patient management for diabetes and diabetic emergencies of hypoglycemia and diabetic ketoacidosis.
134. Describe signs and symptoms and management of local allergic reactions based on an understanding of the pathophysiology associated with this condition.
135. Identify allergens associated with anaphylaxis.
136. Describe the signs and symptoms, and management of anaphylaxis.
137. Define autoimmune disease.
138. Identify general public health principles related to infectious disease.
139. Describe the chain of elements necessary for an infectious disease to occur.
140. Explain how internal and external barriers affect susceptibility to infection.
141. Discuss the AEMT's role in preventing disease transmission.
142. Label a diagram of the abdominal organs.
143. Outline prehospital assessment of a patient who is complaining of abdominal pain.
144. Distinguish between pain characteristics in abdominal pain.
145. Describe general prehospital management techniques for a patient who is complaining of abdominal pain.
146. Label a diagram of the urinary system.
147. Outline the physical examination for patients with genitourinary disorders.
148. Outline the prehospital assessment and management of the female with abdominal pain or bleeding.
149. Outline specific assessment and management for the patient who has been sexually assaulted.
150. Describe specific prehospital measures to preserve evidence in sexual assault cases.
151. Outline musculoskeletal structure and function.
152. Describe how to perform a detailed assessment of the extremities and spine.
153. Specify questions in patient history that help identify musculoskeletal problems.
154. Describe assessment and management of specific nontraumatic musculoskeletal disorders.
155. Define poisoning.
156. Describe general principles for assessment and management of the patient who has ingested poison.
157. Describe the signs and symptoms of selected ingested poisons and management of patients who have taken them.
158. Describe how physical and chemical properties influence the effects of inhaled toxins.
159. Describe general principles of managing the patient who has inhaled poison.
160. Describe the signs, symptoms, and management of patients injected with poison by insects, reptiles, and hazardous aquatic creatures.

161. Outline the general principles of managing patients with drug overdose.
162. Describe the effects, signs and symptoms, and specific management for selected therapeutic and illegal drug overdoses.
163. Describe signs, symptoms, and management of alcohol-related emergencies.
164. Define what constitutes a behavioral emergency.
165. Identify potential causes for behavioral and psychiatric illnesses.
166. List three critical principles that should be considered in the prehospital care of any patient with a behavioral emergency.
167. Outline key elements in the prehospital patient examination during a behavioral emergency.
168. Describe effective techniques for interviewing a patient during a behavioral emergency.
169. Distinguish between key symptoms and management techniques for selected behavioral and psychiatric disorders.
170. Identify factors that must be considered when assessing suicide risk.
171. Formulate appropriate interview questions to determine suicidal intent.
172. Explain prehospital management techniques for the patient who has attempted suicide.
173. Describe assessment of the potentially violent patient.
174. Outline measures that may be used in an attempt to safely diffuse a potentially violent patient situation.
175. List situations when patient restraints can be used.
176. Discuss key principles in patient restraint.
177. Describe safety measures taken when patient violence is anticipated.
178. Define shock.
179. Outline the factors necessary to achieve adequate tissue oxygenation.
180. Describe signs and symptoms associated with the progression through the stages of shock.
181. Describe key assessment findings that distinguish the etiology of the hemorrhagic verses other etiology shock state.
182. Outline the AEMT management of the patient in shock based on knowledge of each type of shock.
183. Identify the role of each component of the trauma system.
184. Predict injury patterns based on knowledge of the laws of physics related to forces involved in trauma.
185. Describe injury patterns that should be suspected when injury occurs related to a specific type of blunt trauma.
186. Describe the role of restraints in injury prevention and injury patterns.
187. Discuss how organ motion can contribute to injury in each body region depending on the forces applied.
188. Identify selected injury patterns associated with motorcycle and all-terrain vehicle collisions.

189. Describe injury patterns associated with pedestrian collisions.
190. Identify injury patterns associated with sports injuries, blast injuries, and vertical falls.
191. Describe factors that influence tissue damage related to penetrating injury.
192. Describe the normal structure and function of the skin.
193. Discuss key signs and symptoms and describe the mechanism of injury and signs and symptoms of specific soft tissue injuries.
194. Outline management principles for prehospital care of soft tissue injuries.
195. Describe, in the correct sequence, patient management techniques for control of hemorrhage.
196. Identify the characteristics of general categories of dressings and bandages.
197. Describe prehospital management of specific soft tissue injuries not requiring closure. Discuss factors that increase the potential for wound infection.
198. Describe the prehospital management of selected soft tissue injuries.
199. Describe the incidence, patterns, and sources of burn injury.
200. Describe the pathophysiology of local and systemic responses to burn injury.
201. Classify burn injury according to depth, extent, and severity based on established standards.
202. Discuss shock in burn patients.
203. Outline the physical examination of the burned patient.
204. Describe the prehospital management of the patient who has sustained a burn injury.
205. Discuss key signs, symptoms, and management of the patient with an inhalation injury.
206. Outline the general assessment and management of the patient who has a chemical injury.
207. Describe specific complications and management techniques for selected chemical injuries.
208. Describe the effects of electrical injuries as they relate to each body system based on an understanding of key principles of electricity.
209. Outline assessment and management of the patient with electrical injury.
210. Describe the distinguishing features of radiation injury and considerations in the prehospital management of these patients.
211. Describe the mechanisms of injury, assessment, and management of maxillofacial injuries.
212. Describe the mechanisms of injury, assessment, and management of ear, eye, and dental injuries.
213. Describe the mechanisms of injury, assessment, and management of anterior neck trauma.
214. Distinguish between types of traumatic brain injury based on an understanding of pathophysiology and assessment findings.
215. Predict mechanisms of injury that are likely to cause spinal injury.
216. Describe the anatomy and physiology of the spine and spinal cord.
217. Outline the general assessment of a patient with suspected spinal injury.
218. Distinguish between types of spinal injury.

219. Describe prehospital evaluation and assessment of spinal cord injury.
220. Identify prehospital management of the patient with spinal injuries.
221. Discuss mechanism of injury associated with chest trauma.
222. Describe the mechanism of injury, signs and symptoms, and management of skeletal injuries to the chest.
223. Describe the mechanism of injury, signs and symptoms, and prehospital management of pulmonary trauma.
224. Describe the mechanism of injury, signs and symptoms, and prehospital management of injuries to the heart and great vessels.
225. Outline the mechanism of injury, signs and symptoms, and prehospital care of the patient with esophageal and tracheobronchial injury and diaphragmatic rupture.
226. Identify mechanisms of injury associated with abdominal trauma.
227. Describe mechanisms of injury, signs and symptoms, and complications associated with abdominal solid organ, hollow organ, retroperitoneal organ, and pelvic organ injuries.
228. Outline the significance of injury to intra-abdominal vascular structures.
229. Describe the prehospital assessment priorities for the patient suspected of having an abdominal injury.
230. Outline the prehospital care of the patient with abdominal trauma.
231. Describe the features of each class of musculoskeletal injury.
232. Describe the features of bursitis, tendonitis, and arthritis.
233. Given a specific patient scenario, outline the prehospital assessment of the musculoskeletal system.
234. Outline general principles of splinting.
235. Describe the significance and prehospital management principles for selected upper extremity injuries.
236. Describe the significance and prehospital management principles for selected lower extremity injuries.
237. Identify prehospital management priorities for open fractures.
238. Describe the principles of realignment of angular fractures and dislocations.
239. Describe the physiology of thermoregulation.
240. Discuss the risk factors, assessment findings, and management of specific hyperthermic conditions.
241. Discuss the risk factors, assessment findings, and management of specific hypothermic conditions and frostbite.
242. Discuss the risk factors, assessment findings, and management of submersion and drowning.
243. Discuss the risk factors, assessment findings, and management of diving emergencies and high-altitude illness.
244. Describe the basic anatomy and physiology of the female reproductive system.

245. Explain normal maternal physiological changes that occur during pregnancy and how they influence prehospital patient care and transportation.
246. Describe appropriate information to be elicited during the obstetrical patient's history. Describe specific techniques for assessment of the pregnant patient.
247. Describe the general prehospital care of the pregnant patient.
248. Discuss the special implications of trauma in pregnancy.
249. Outline principles of care for a pregnant patient in cardiac arrest or peri-arrest.
250. Describe the role of the EMT during normal labor and delivery.
251. Compute an Apgar score.
252. Describe assessment and management of postpartum hemorrhage.
253. Identify risk factors associated with the need for neonatal resuscitation.
254. Outline the prehospital assessment and management of the neonate.
255. Identify injuries associated with birth.
256. Describe appropriate interventions to manage the emotional needs of the neonate's family.
257. Identify modifications in patient assessment techniques that assist in the examination of patients at different developmental levels.
258. Describe the signs and symptoms, and management of selected pediatric
259. respiratory emergencies.
260. Describe the signs and symptoms, and management of shock in the pediatric patient.
261. Describe the signs and symptoms, and management of selected pediatric dysrhythmias.
262. Describe the signs and symptoms, and management of pediatric seizures.
263. Describe the signs and symptoms, and management of hypoglycemia and hyperglycemia in the pediatric patient.
264. Describe the signs and symptoms, and management of infectious pediatric emergencies.
265. Identify common causes of poisoning and toxic exposure in the pediatric patient.
266. Describe special considerations for assessment and management of specific injuries in children.
267. Outline the management of sudden infant death syndrome.
268. Describe the risk factors, key signs and symptoms, and management of injuries or illness resulting from child abuse and neglect.
269. Identify prehospital considerations for the care of infants and children with special needs.
270. Discuss the aging process as it relates to major body systems.
271. Describe general principles of assessment specific to older adults.
272. Describe the assessment and management of specific illnesses that affect selected body systems in the geriatric patient.
273. Identify specific problems with sensations experienced by some geriatric patients.
274. Discuss effects of drug toxicity and alcoholism in the older adult.
275. Identify factors that contribute to environmental emergencies in the geriatric patient.
276. Describe epidemiology, assessment, and management of trauma in the geriatric patient.

277. Identify characteristics of elder abuse.
278. Identify types of elder abuse.
279. Discuss legal considerations related to all forms of abuse.
280. Describe characteristics of abused children and their abusers.
281. Outline the physical examination of the abused child.
282. Describe the characteristics of sexual assault.
283. Outline prehospital patient care considerations for the patient who has been sexually assaulted.
284. Identify considerations in prehospital management related to physical challenges such as hearing, visual, and speech impairments; obesity; and patients with paraplegia or quadriplegia.
285. Identify considerations in prehospital management of patients who have mental illness, are developmentally disabled, or are emotionally or mentally impaired.
286. Outline considerations in management of culturally diverse patients.
287. Describe special considerations in the prehospital management of terminally ill patients.
288. Identify special considerations in management of patients with communicable diseases.
289. List standards that govern ambulance performance and specifications.
290. Discuss the tracking of equipment, supplies, and maintenance on an ambulance.
291. Describe measures that can influence safe operation of an ambulance.
292. Outline the components that define a major incident.
293. Identify the components of an effective incident command system.
294. Identify the five major functions of the incident command system.
295. List command responsibilities during a major incident response.
296. Identify situations that may be classified as major incidents.
297. Outline the principles of triage.
298. Identify resources for the management of critical incident stress.
299. Given a patient care situation, identify the patient who requires advanced life support and the importance of accessing advanced life support care at the paramedic or Advanced Practice Paramedic level for the patient.