

5. Knowledge and Skill Comparison (Advanced Emergency Medical Technician)

The order of content is not meant to imply the order of delivery.

a. Advanced Emergency Medical Technician: New Course Considerations

When planning and conducting a new AEMT course, the Program Director or Course Coordinator must incorporate all considerations at the EMR and EMT levels plus,

- Clinical skills
- Field experience as a team leader
- Review and verify integration of the clinical behavior/judgment section of *Education Standards*, particularly related to lab and clinical and field activities.
- Include affective evaluation and professional behavior in student assessment

b. Advanced Emergency Medical Technician : Skills

1985 EMT-Intermediate

For a current 1985 EMT-Intermediate (based on 1985 EMT-I National Standard Curriculum) transitioning to 2009 Advanced Emergency Medical Technician (AEMT), the following skills are no longer taught:

- Insertion of esophageal airways

For a current 1985 EMT-I transitioning to 2009 AEMT, the following skills are now taught in the 2009 EMR or 2009 EMT and are to be considered new:

- Use of partial rebreather masks (introduced at the EMT level)
- Use of simple face masks (introduced at the EMT level)
- Use of Venturi masks (introduced at the EMT level)
- Obtaining a pulse oximetry value (introduced at the EMT level)
- Use of automated transport ventilators (introduced at the EMT level)
- Administration of aspirin by mouth (introduced at the EMT level)
- Automated defibrillation (introduced at EMT level)
- Self or peer use of an auto-injector (introduced at the EMR level)

For a current 1985 EMT-I transitioning to 2009 AEMT, the following skills are new:

- Insertion of supraglottic airways; airways not intended for insertion into the trachea
- Use of oxygen humidifiers
- Use of tracheostomy mask
- Tracheobronchial suctioning (already intubated patient)
- Use of mechanical CPR devices (requires additional specialty training and device approval)
- Application of mechanical patient restraint (not new skill, but new information)
- Insertion of intraosseous infusion in children
- Administration of aerosolized or nebulized beta agonists (I-85s could previously only assist a patient with his or her own prescription medication and now they administer as an EMS medication)
- Allow self-administered nitrous oxide
- Administer intramuscular epinephrine and glucagon
- Administration of intranasal naloxone
- Administer intravenous naloxone or 50% dextrose
- Administration of subcutaneous epinephrine
- Blood glucose monitoring

1999 EMT-Intermediate

For a current 1999 EMT-Intermediate (based on 1999 EMT-I National Standard Curriculum) transitioning to 2009 Advanced Emergency Medical Technician (AEMT), the following skills are no longer taught:

- Perform needle chest decompression
- Perform needle cricothyrotomy
- Insertion of nasogastric and orogastric tubes
- Insertion of an orotracheal tube
- Performing direct laryngoscopy
- Tracheobronchial suctioning (I-99s permitted to intubate and suction; now AEMTs only able to perform suctioning in already intubated patients)
- Interpret single lead electrocardiograms
- Perform manual defibrillation attempts
- Apply ECG to monitor internal cardiac pacing
- Perform transcutaneous cardiac pacing
- Rectal medication administration
- Transtracheal medication administration
- Pressure points and elevation for hemorrhage control

For a current 1999 EMT-Intermediate (based on 1999 EMT-I National Standard Curriculum) transitioning to 2009 Advanced Emergency Medical Technician (AEMT), the following skills are new:

- Administration of intranasal naloxone
- Use of mechanical CPR devices (introduced at the EMT level)
- Self or peer use of an auto-injector (introduced at the EMR level)

c. Advanced Emergency Medical Technician: Content

Preparatory – EMS Systems

- **EMS Systems** – more detailed discussion on patient safety issues, strategies to decrease medical errors
- **Research** – extremely limited information on evidence based decision making
- **Workforce Safety and Wellness** – emphasizes the difference between body substance isolation and personal protective equipment; brief discussion on bariatric issues, neonatal isolettes and medical restraint
- **Documentation** - the Health Insurance Portability and Accountability Act (HIPAA) did not exist when either of the EMT-I curricula was authored
- **Therapeutic Communications** – more detailed information about improving communication with the patient
- **Medical/Legal/Ethics** – the Health Insurance Portability and Accountability Act (HIPAA) did not exist when the EMT-I curriculum was authored; should include a state-specific discussion on privileged communication; includes a brief discussion on living wills, surrogate decision makers, and civil and criminal court cases; ethics

Anatomy and Physiology

- More detailed discussion than in the previous version

Medical Terminology

- Although not detailed, this content is new to this level

Pathophysiology

- This content is new to this level but only focuses on respiratory and perfusion dysfunction along with shock

Life-Span Development

- New information at this level

Public Health

- New information at this level; related to *EMS Agenda for the Future* issues

Pharmacology

- **Principles of Pharmacology** – new information at this level
- **Medication Administration** – added the five rights of medication administration; more detailed information
- **Emergency Medications** – specific list of medications

Airway Management, Respiration, and Oxygenation

- **Anatomy and Physiology** – much more detailed than in the previous EMT-I curriculum
- **Artificial Ventilation** - much more detailed than in the previous EMT-I curriculum
- **Respiration** - much more detailed minimal new content added to this level in the previous EMT-I curriculum

Patient Assessment

- **Scene Size-Up** – no new information here but a re-emphasis on the need for scene safety for everyone present
- **Primary Assessment** - new terminology that more closely mimics other health care professionals
- **History Taking** - new terminology that more closely mimics other health care professionals
- **Secondary Assessment** - new terminology that more closely mimics other health care professionals; more thorough than in the previous curriculum
- **Monitoring Devices** – blood glucose monitoring and blood chemistry analysis added to this level

Medicine

- **Medical Overview** – re-use of the new assessment terminology
- **Abdominal and Gastrointestinal Disorders** – minimal new content added to this level
- **Immunology** – all new information
- **Infectious Diseases** – this section should include updated infectious disease information, for example methicillin-resistant Staphylococcus aureus, hepatitis, and Acquired Immune Deficiency Syndrome update; should include a discussion on cleaning and sterilizing equipment and decontaminating the ambulance
- **Endocrine** – increased emphasis on pathophysiology and acknowledgement of the increasing prevalence and incidence of diabetes in the community
- **Psychiatric** – includes new material on excited delirium
- **Cardiovascular** – increased emphasis on anatomy, physiology and pathophysiology; increased emphasis on specific cardiovascular emergencies
- **Toxicology** – all new information
- **Respiratory** – more in-depth evaluation of a patient with respiratory problems.
- **Hematology** – brief discussion in sickle cell disease
- **Genitourinary/Renal** – more detailed discussion of this organ system
- **Gynecology** – includes brief discussion of sexually transmitted diseases and pelvic inflammatory disease
- **Non-Traumatic Musculoskeletal Disorders** – new information at this level

Shock and Resuscitation

- This shock content was moved from trauma to emphasize the fact that it can happen in a context other than trauma; the cardiac arrest information was moved from an optional module at the Intermediate-85 level and cardiovascular emergencies at the Intermediate-99 level; brief discussion on devices to assist circulation, although subject to local protocol; shock should be taught in a more comprehensive context rather than simply as a consequence of bleeding

Trauma

- **Overview** – all material at this level represents the same depth and breadth as at the EMT level
- **Bleeding** – more detailed discussion
- **Chest Trauma** – more detailed discussion
- **Abdominal Trauma** – more detailed discussion
- **Orthopedic Trauma** - more detailed discussion
- **Head, Facial, Neck, and Spine Trauma** – more detail about neck eye, oral and brain injuries; emphasizes the harm of over ventilation in most situations

- **Nervous System Trauma** - more detail on brain anatomy; emphasizes the harm of hyperventilation; references the Brain Trauma Foundation; increased emphasis on neurological assessment
- **Special Considerations in Trauma** – all section new or increased emphasis
- **Environmental** – all material at this level represents the same depth and breadth as at the EMT level
- **Multi-system Trauma** – new material at this level; includes discussion of kinematics and blast injury

Special Patient Populations

- **Pregnant Patient** – more detailed discussion on complications of pregnancy; uses the terms preeclampsia, eclampsia and premature rupture of membranes which do not require a lengthy discussion
- **Pediatrics** – this section is much more detailed than in the previous version
- **Geriatrics** – all new section for this level
- **Patients with Special Challenges** – elder abuse, homelessness, poverty, bariatric, more technology dependant, hospice, sensory deficit, homecare, and developmental disabilities added

EMS Operations

- **Principles of Safely Operating a Ground Ambulance** - all material at this level represents the same depth and breadth as at the EMT level
- **Incident Management** – all material at this level represents the same depth and breadth as at the EMT level
- **Multiple Casualty Incidents** – all material at this level represents the same depth and breadth as at the EMT level
- **Air Medical** – all material at this level represents the same depth and breadth as at the EMT level
- **Vehicle Extrication** – all material at this level represents the same depth and breadth as at the EMT level
- **Hazardous Materials Awareness** – all material at this level represents the same depth and breadth as at the EMT level
- **Mass Casualty Incidents Due to Terrorism or Disaster** – all material at this level represents the same depth and breadth as at the EMT level