





# EMERGENCY MEDICAL TECHNICIAN



# **PURPOSE**

To evaluate each competitor's knowledge and skills required for competent practice within the Emergency Medical Service (EMS) field as an Emergency Medical Technician (EMT) at the Basic Life Support (BLS) level of care and to recognize outstanding students for clinical excellence and professionalism within the field of EMS.

# **ELIGIBILITY (TEAM OF TWO)**

Open to a team of two (2) active SkillsUSA members from the same local chapter (school) enrolled in career and technical education programs with Emergency Medical Technician (EMT) or related fields as an occupational objective. Each local chapter (school) may send a team of two (2). A full team must be registered. See General Regulations for more information about substitution and penalty rules.

Student competitors must be enrolled in, or just have completed (within the current membership year) an EMT program in preparation for a career in emergency services (EMS) or other closely related technical, skilled, or service occupation.

# **CLOTHING REQUIREMENT**

# NYS SkillsUSA Contest Specific

- A professional shirt with a collar can be full button up or polo style. Specific color not required. All agency/school patches and logos must be covered. American flag patches allowed. A solid color navy or black zip up jacket or quarter zip "job shirt" may be worn for comfort at the competitor's discretion. All agency/school patches and logos must be covered.
- Navy, black, grey, or tan pants *Note:* BDU/tactical style pants (e.g., 511 or EMT pants) with a black belt
- Black work safety boot. A protective toe cap is not required. No tennis/running shoes or platform boots allowed.

*Note:* Safety glasses must have side shields or goggles. (Prescription safety glasses may be used only if they are equipped with side shields. If not, they must be covered with goggles.)

*Note:* Competitors must wear their official competition clothing to the competition orientation.

# **EQUIPMENT AND MATERIALS**

- 1. Supplied by the Technical Committee:
  - a. Tables and chairs
  - b. All written material and blank scratch paper
  - c. Materials for clinical and/or skills stations for selected procedures
  - d. Holding area for competitors
  - e. Clinical scenarios
  - f. Supplies for judges to include pens, scoring rubrics, calculators, and stopwatches
  - g. Blankets and pillows
  - h. Event evaluations
  - i. Pens and pencils
  - j. Oxygen cylinders
  - k. Suction device with assorted catheters
  - 1. Long spine backboard with 3 straps and/or "Spider straps"
  - m. Complete set of C-collars or adjustable C-collars
  - n. Splinting supplies (e.g., padded board splints, cardboard, traction splint, etc.)
  - o. CPR manikins and training AED
  - p. Two-way radio or walkie talkies for simulating calling for additional resources
  - q. Additional equipment provided for competitions will be available for review at orientation.
- 2. Supplied by the competitor:
  - a. Pencils and pens
  - b. Wristwatch capable of timing in seconds (no smartwatches allowed)
  - c. One complete medical kit per team containing Must be in a single carrying case (jump kit/bag), like what would be found on an ambulance or first response unit.
    - 1). Personal Protective Equipment to include 25 pairs of disposable medical exam gloves, 2 pairs of safety glasses, 4 surgical masks, and 2 isolation gowns.
    - 2). Dressings, 4x4 (24)
    - 3). Dressings, 5x9 (6)
    - 4). Trauma dressings, 10x30 (2)
    - 5). Conforming gauze 2 sizes, assorted (10)
    - 6). Triangular bandages (6)
    - 7). Sterile saline (500 mL minimum)
    - 8). Tourniquet (1)
    - 9). Tape 2 seizes, assorted (3)
    - 10). Occlusive dressing (1), commercial chest seals, or supplies to make these dressings (e.g., precut plastic squares of different sizes; no Tegaderm/transparent waterproof dressings are allowed to be used as occlusive dressings)
    - 11). Cold packs (4)
    - 12). Sterile burn sheets (2)
    - 13). Bandage shears
    - 14). Penlight/flashlight
    - 15). Adult stethoscope
    - 16). Pediatric stethoscope
    - 17). Adult blood pressure cuff
    - 18). Pediatric blood pressure cuffs (infant and child)
    - 19). Adult oral airways (4 sizes)
    - 20). Adult nasal airways (4 sizes)
    - 21). Pediatric oral airways (3 sizes, 2 each)

- 22). Pediatric nasal airways (3 sizes)
- 23). Adult B-V-M with 2 adult masks
- 24). Pediatric B-V-M with 3 ped/child/infant masks
- 25). Adult NRB masks and cannulas (2 each)
- 26). Pediatric NRB masks and cannulas (2 each)
- 27). Emesis containers (2)
- 28). Glucometer kit with strips (5), lancets (5), alcohol preps (5) and

Band-Aids (5)

- 29). Pulse oximeter (1)
- 30). Sharps shuttle (1)
- 31). OB kit (1)
- 32). Glucose or equivalent
- d. A current American Heart Association BLS (CPR) certification card. Electronic versions are acceptable. Copies of cards will be collected and/or validated during competition orientation.
- e. All competitors must create and submit a one-page single sided resume. Physical copies of resumes will be collected during competition orientation.

#### PROHIBITED DEVICES

Cellphones, electronic watches and/or other electronic devices not approved by a competition's technical committee are *NOT* allowed in the competition area. Please follow the guidelines in each technical standard for approved exceptions. Technical committee members may also approve exceptions onsite during the NYS SkillsUSA Leadership and Skills Championships if deemed appropriate.

#### **Penalties for Prohibited Devices**

If a competitor's electronic device makes noise or if the competitor is seen using it at any time during the competition, an official report will be documented for review by the Director of the NYS SkillsUSA Leadership and Skills Championships. If confirmed that the competitor used the device in a manner which compromised the integrity of the competition, the competitor's scores may be removed.

# **SCOPE OF THE COMPETITION**

The competition will evaluate the competitors' ability to perform as an Emergency Medical Technician (EMT) at the Basic Life Support (BLS) level of care. The following is a list of materials used in the formation of the competition:

- National Registry Patient Assessment Technical Scope of Practice Standards (TSOPS) from National Highway Traffic Safety Administration
- Current American Heart Association CPR/ECC guidelines
- AAOS, Emergency Care and Transportation of the Sick and Injured 12th Ed. and Pearson,
  Emergency Care, 14th Ed. (both textbooks provide similar information)

#### **KNOWLEDGE PERFORMANCE**

The competition will include a test to assess the general knowledge of an Emergency Medical Technician. The team members will complete the test separately. Team member's test scores will be averaged together. Competitors are required to take the SkillsUSA Professional Development Test.

#### **SKILLS PERFORMANCE**

The competition will include activities that simulate situations encountered by emergency medical professionals. There will be a clinical scenario, either medical or trauma in nature.

**Note:** All teams will have the same clinical scenario. The scenario will require the use of critical thinking skills, communication and demonstration of professionalism. There will be four skill stations during which teams will be assessed on specific skills within their scope of practice. While performing procedures, competitors may ask only questions of the judges related to victim physiology. Competitors will be given two (2) minutes to prepare equipment and to confirm knowledge of operation, if unfamiliar. Judges will only provide information as to the safe operation of the device. No demonstration of the equipment's use will be provided by the judge. In case of a tie, a new scenario will be performed and evaluated to determine the winner.

#### **COMPETITION GUIDELINES**

- 1. Each team must work independently without assistance from instructors, other competitors, and/or observers. Contact with competitors must be coordinated through designated event staff only. Any violation of this may result in the disqualification of the team.
- 2. A competitor holding area will be established if observation of stations/scenarios presents a competitive advantage. Competitors must remain in the holding area until they complete all required stations.

- 3. Cellphones, iPads/tablets, smart watches, wearable technology and/or any other electronic device are prohibited from the competition and holding areas. Competitors are allowed to have reading material i.e., books, magazines in the holding area.
- 4. Only competitors, judges and event staff are allowed in the competition area at any time. Observation is limited to the area designated by the judges or event staff. Any outdoor competition area may only be accessed by judges, competitors and event staff. Any violation of this may result in the disqualification of the competitor.
- 5. Contact with judges in any way, at any time, without the expressed permission of the competition coordinator is prohibited.

### **Common Language**

# "That's outside your scope of practice, please continue."

If a competitor provides a treatment or skill that is outside the New York State EMT scope of practice, the judge will make this statement. If the competitor corrects the action to current standards, a penalty will not be assessed. Example: Competitor states they will endotracheal intubate the patient, judge states "That's outside your scope of practice, please continue", competitor states they will use an OPA and call for an ALS provider.

# "Safety Stop"

If a competitor or judge sees something that is considered unsafe, then this will be called. Depending on the situation, competitors may be deducted points. Example: simulator is about to be dropped during movement to ambulance.

## "Tech Stop"

The committee recognizes that not all equipment operates the same. The committee will try to provide hands-on training before the competition. If a competitor believes that the equipment is failing, then the competitor may request this stop. If it is a valid stop, and the competitor can articulate the issue with the equipment, no penalty will occur. If the judge advises, "Please Continue" this means the stop was not valid and normal operation of the equipment with standard knowledge should be able to be operated.

#### STANDARDS AND COMPETENCIES

#### **EMT 1.0** — **Preparatory**

1.1. Applies knowledge of the EMS system, safety/well-being of the EMT, and medical/legal and ethical issues to the provision of emergency care.

#### EMT 2.0 — Anatomy and Physiology

2.1. Applies knowledge of the anatomy and function of all human systems to the practice of EMS.

# **EMT 3.0** — Medical Terminology

# **EMT 4.0** — **Pathophysiology**

4.1. Applies knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.

## **EMT 5.0** — Life Span Development

5.1. Applies knowledge of life span development to patient assessment and management.

#### EMT 6.0 — Public Health

6.1. Applies knowledge of the principles of public health epidemiology including public health emergencies, public health monitoring, health promotion and illness and injury prevention.

### **EMT 7.0** — **Pharmacology**

7.1. Applies knowledge of the medications the EMT may administer to a patient during an emergency and chronic or maintenance medications the patient may be taking.

### **EMT 8.0** — Airway Management, Respiration and Ventilation

8.1. Applies knowledge of anatomy and physiology to patient assessment and management to assure a patent airway, adequate mechanical ventilation and respiration for patients of all ages.

#### EMT 9.0 — Assessment

9.1. Applies scene information and patient assessment findings (scene size up, primary and secondary assessment, patient history and reassessment) to guide emergency management.

#### EMT 10.0 — Medicine

10.1. Applies knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

#### EMT 11.0 — Shock and Resuscitation

11.1. Applies knowledge of the causes, pathophysiology and management of shock, respiratory failure or arrest, cardiac failure or arrest, termination of resuscitative efforts and post resuscitation management.

#### EMT 12.0—Trauma

12.1. Applies knowledge to provide basic emergency care and transportation based on assessment findings for an acutely injured patient.

# **EMT 13.0 — Special Patient Populations**

13.1. Applies knowledge of growth, development and aging and assessment findings to provide basic emergency care and transportation for a patient with special needs.

# EMT 14.0 — EMS Operations

14.1. Knowledge of operational roles and responsibilities to ensure patient, public and personnel safety.

#### **EMT 15.0 — SkillsUSA Framework**

The SkillsUSA Framework is used to pinpoint the Essential Elements found in Personal Skills, Workplace Skills and Technical Skills Grounded in Academics. Students will be expected to display or explain how they used some of these Essential Elements.

#### **COMMITTEEIDENTIFIED ACADEMIC SKILLS**

#### **Math Skills**

- Use of fractions to solve practical problems.
- Use proportions and ratios to solve.
- Practical problems
- Measure angles.
- Find surface area and perimeter of two-dimensional objectives.

#### **Science Skills**

- Plan and conduct a scientific investigation.
- Describe basic needs of organisms.
- Describe and identify physical changes to matter.
- Use knowledge of heat, light and sound energy.
- Use knowledge of temperature scales, heat, and heat transfer.
- Use knowledge of simple machines, compound machines, powered vehicles and restraining devices.

#### **Language Arts Skills**

- Provide information in conversation and in group discussion.
- Demonstrate use of such verbal communication skills as word choice, pitch, feeling, tone and voice.
- Demonstrate use of such nonverbal communication skills as eye contact, posture, and gestures using interviewing techniques to gain and share information.

#### **CONNECTIONS TO NATIONAL STANDARDS**

State-level academic curriculum specialists identified the following connections to national academic standards.

### **Math Standards**

- Geometry
- Measurement
- Problem-solving

#### **Science Standards**

- Understands the principles of heredity and related concepts.
- Understands the structure and function of cells and organisms.
- Understands relationships among organisms and their physical environment.
- Understands the sources and properties of energy.

- Understands forces and motion.
- Understands the nature of scientific inquiry.

## **Language Arts Standards**

- Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).
- Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
- Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
- Students use spoken, written and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion and the exchange of information).