

Emergency Medical Technician

New for 2020 – 2021

Competitor orientation deleted from ILC.
Changes have been made to What Competitors Must Provide.
Spinal immobilization skills have been deleted. Skills align to NREMT psychomotor exam.

Event Summary

Emergency Medical Technician provides HOSA members with the opportunity to gain knowledge and skills required for emergency medical care. This competitive event consists of 2 rounds and each team consists of 2 people. Round One is a written, multiple choice test and the top scoring teams will advance to Round Two for the skills assessment. This event aims to inspire members to be proactive future health professionals and be equipped with resilience, physical strength and problem-solving skills to provide immediate treatment in emergencies.

Dress Code Competitors shall wear proper business attire or official HOSA uniform, or attire appropriate to the occupational area, during both rounds. Bonus points will be awarded for [proper dress](#).

General Rules

1. Competitors in this event must be active members of HOSA and in good standing.
2. Secondary and Postsecondary/Collegiate divisions are eligible to compete in this event.
3. Competitors must be familiar with and adhere to the [“General Rules and Regulations of the HOSA Competitive Events Program \(GRR\).”](#)
4. All competitors shall report to the site of the event at the time designated for each round of competition. At ILC, competitor’s [photo ID](#) must be presented prior to ALL competition rounds.
5. Competitors should compete in skill events at the highest level of training. An example would be students enrolled in an Emergency Medical Technician course should compete in the Emergency Medical Technician event and NOT in the CERT or CPR/First Aid event.

Official References

6. All official references are used in the development of the written test. The specific references selected for each skill are the National Registry EMT skill sheets.
 - [Emergency Care and Transportation of the Sick and Injured. Series Editor: Andrew N. Pollak, MD, FAAOS. Published by Jones & Bartlett Learning. Latest edition.](#)
 - [American Heart Association, Basic Life Support, Latest edition.](#)
 - [Limmer, Daniel. Emergency Care. Published by Prentice Hall, a “Brady” book, Latest edition.](#)
 - [NREMT Skill Sheets \(as posted as of September 1, 2020\)](#)

Round One Test

7. [Test Instructions](#): The written test will consist of 50 multiple choice items in a maximum of 60 minutes.
8. **Time Remaining Announcements**: There will be a verbal announcement when there are 30 minutes, 15 minutes, 5 minutes, and 1 minute remaining to complete the test.
9. **Written Test Plan**

Patient Assessment	20%
Basic Life Support.....	20%
Trauma	15%
Medical Emergencies	15%
Pediatrics and Childbirth.....	15%
Environmental Emergencies.....	10%
Special Situations	5%
10. The average test score from Round One will be used to qualify the team for Round Two.
11. **Sample Test Questions**
 1. Which of the following statements best describes the systolic blood pressure?
 - A. An amount that is double the diastolic pressure.
 - B. The difference between the resting pressure and the pumping pressure.
 - C. The pressure when the heart is relaxing and allowing blood into the atria.
 - D. The pressure created when the heart contracts and forces blood into the arteries.**
Limmer 316/Pollak 358
 2. If an adult patient is not breathing but has a pulse, the patient should be ventilated at a rate of how many breaths per minute?
 - A. 6-8
 - B. 10-12**
 - C. 14-16
 - D. 18-20
AHA BLS pp 15
 3. What is the term for a fracture of the distal radius, especially common in elderly patients with osteoporosis?
 - A. Tommy John
 - B. Supracondylar
 - C. Colles'**
 - D. Rotation
Pollak pp 1121

Round Two Skills

12. Round Two is the performance of a selected skill(s). The Round Two skills approved for this event are:

Skill I:	Patient Assessment - Trauma
Skill II:	Patient Assessment - Medical
Skill III:	BVM Ventilation: Apneic Adult Patient
Skill IV-A:	Joint Immobilization
Skill IV-B:	Long Bone Immobilization

Skill V: Bleeding Control/Shock Management
Skill VI: Cardiac Arrest Management/AED
Skill VII: Oxygen Administration by Non-Rebreather Mask

13. A **twelve (12) minute maximum time limit** has been set for the team demonstration. The selected skill(s) will be presented to competitors as a written scenario at the beginning of the round. The scenario will be the same for each team and will include a challenging component that will require the competitors to apply critical thinking skills. A sample scenario can be found [here](#).
14. Timing will begin when the scenario is presented to the team and competitors will be stopped at the end of the time allowed.
15. The scenario is a secret topic. Competitors MAY NOT discuss or reveal the secret topic until after the event has concluded or will face penalties per [the GRRs](#).
16. *Oxygen Administration:* Oxygen tank assembly is not included in the HOSA EMT event. HOWEVER, an oxygen tank that is ready to use may be available. If the application of oxygen is indicated by the scenario and condition of the patient(s) the competitors should follow proper EMS protocol in initiating and maintaining oxygen therapy.

If a tank is NOT available and oxygen is indicated, the competitors should verbalize the necessary steps that involve the application of oxygen.
Points will be awarded as indicated on the rating sheet used to evaluate all aspects of team's performance, including the use of oxygen therapy.
17. Judges will provide information to competitors as directed by the rating sheets. Competitors may ask questions of the judges while performing skills if the questions relate to patient physiology and will be included in the scenario.
For example:
 - What are the vital signs?
 - Do I hear breath sounds?
 - Do I have a distal pulse?
 - Is the patient breathing?
 - Are the patient's lips blue?

Final Scoring

18. Teams must earn a score of 70% or higher on the combined skill(s) of the event (excluding the test) in order to be recognized as an award winner at the ILC.
19. Final rank is determined by adding the averaged round one test score plus round two skill score. In case of a tie, the highest averaged test score will be used to determine final placement.

Competitor Must Provide:

- Two #2 lead pencils with eraser
- Watch with second hand (optional-Round Two only)
- [Photo ID](#)

*** Teams have the option of bringing one kit per person or one kit per team**

- Barrier supplies for each competitor:
 - 5 pairs of non-latex gloves AND 2 masks AND 2 gowns
 - 1 set of goggles or safety glasses per person
- 6 - 10 "4x4" dressings (team's choice)
- self-adhering or roller gauze bandages (team's choice.)
- 4 cravats (used to tie or anchor splints in place – team's choice.)
- Adhesive tape
- Scissors
- Penlight
- 2 occlusive dressing supplies
- 4 abdominal / trauma dressings
- Stethoscope/B/P cuff
- Oral airway kit (sizes 0-6)
- BVM
- Pocket mask and/or other appropriate barrier (face shield, mouth-to-mask device)
- Tourniquet
- Cell phone for simulating call for EMS assistance

EMERGENCY MEDICAL TECHNICIAN

Team #: _____ Section #: _____ Judge's Signature: _____

Skill I: Patient Assessment – Trauma		Possible		Awarded
1.	Practiced body substance isolation precautions throughout skill	1	0	
2.	Scene Size-up			
	a. Determined the scene/situation is safe	1	0	
	b. Determined the mechanism of injury/nature of illness	1	0	
	c. Determined the number of patient	1	0	
	d. Requested additional EMS assistance if needed	1	0	
3.	If trauma suspected, competitor verbalized/simulates, "Spinal Immobilization performed at this time"	1	0	
4.	Primary Survey/Resuscitation			
	a. Verbalized general impression of patient	1	0	
	b. Determined responsiveness/level of consciousness	1	0	
	c. Determined chief complaint/apparent life threats	1	0	
5.	Airway			
	a. Opened and assessed airway	1	0	
	b. Inserted adjunct as indicated	1	0	
6.	Breathing			
	a. Assessed breathing	1	0	
	b. Assured adequate ventilation	1	0	
	c. Initiated appropriate oxygen therapy	1	0	
	d. Managed any injury which may compromise breathing/ventilation	1	0	
7.	Circulation			
	a. Checked pulse	1	0	
	b. Assessed skin (either color, temperature or condition)	1	0	
	c. Assessed for and controlled major bleeding (if present)	1	0	
	d. Initiated shock management (positioned patient properly, conserved body heat)	1	0	
8.	Identified patient priority and made treatment/transport decision (based upon calculated GCS)	1	0	
9.	Obtained baseline vital signs (must include BP, P and R)	1	0	

Items Evaluated	Possible	Awarded
10. Past medical history a. Signs and Symptoms	1 0	
b. Allergies	1 0	
c. Medications	1 0	
d. Pertinent Medical History	1 0	
e. Last Oral Intake	1 0	
f. Events Leading to Present Illness	1 0	
SECONDARY ASSESSMENT		
11. Head		
a. Inspects and palpates scalp and ears	1 0	
b. Inspects mouth*, nose* and assesses facial area.	1 0	
c. Assesses eyes	1 0	
12. Neck*		
a. Checks position of trachea	1 0	
b. Checks jugular veins	1 0	
c. Palpates cervical spine	1 0	
13. Chest*		
a. Inspects chest	1 0	
b. Palpates chest	1 0	
c. Auscultates chest	1 0	
14. Abdomen/pelvis*		
a. Inspects and palpates abdomen	1 0	
b. Assesses pelvis	1 0	
c. Verbalizes assessment of genitalia/perineum as needed	1 0	
15. Lower Extremities* One (1) point per leg includes inspection, palpation, and assessment of motor, sensory and distal circulatory function	2 0	
16. Upper Extremities* One (1) point per arm includes inspection, palpation, and assessment of motor, sensory and distal circulatory function	2 0	
17. Posterior thorax, lumbar and buttocks*		
a. Inspects and palpates posterior thorax	1 0	
b. Inspects and palpates lumbar and buttock (verbalizes) area	1 0	

Items Evaluated		Possible		Awarded
18.	Manages secondary injuries and wounds appropriately.	1	0	
19.	Demonstrates how and when to reassess the patient	1	0	
20.	Interventions (verbalizes proper intervention/treatment.)	1	0	
21.	Appropriate verbal and nonverbal communication with patient and other personnel.	2	0	
22.	Provides report to Emergency Department			
	a. Unit identification	1	0	
	b. Patient's age and sex	1	0	
	c. Chief complaint	1	0	
	d. Mental status	1	0	
	e. Vital signs	1	0	
	f. Treatment in progress	1	0	
	g. Estimated time of arrival	1	0	
TOTAL POINTS -- SKILL I		57		
70% Mastery for Skill I = 39.9				

** Award points in areas denoted by * if done, OR if integrated within sequence of Primary Survey/Resuscitation.*

***If a competitor jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*

EMERGENCY MEDICAL TECHNICIAN

Team #: _____ Section #: _____

Judge's Signature: _____

Skill II: Patient Assessment - Medical		Possible	Awarded
1.	Practiced body substance isolation precautions throughout skill	1	0
2.	Scene Size-up		
	a. Determines the scene/situation is safe	1	0
	b. Determines the mechanism of injury/nature of illness	1	0
	c. Requests additional EMS assistance if necessary.	1	0
	d. Determines the number of patients	1	0
3.	If trauma suspected, competitor verbalizes/simulates, "Spinal immobilization performed at this time"	1	0
4.	Primary Survey/Resuscitation		
	a. Verbalizes general impression of patient	1	0
	b. Determines responsiveness/level of consciousness (AVPU)	1	0
	c. Determines chief complaint/apparent life threats	1	0
5.	Assesses airway and breathing		
	a. Assessment	1	0
	b. Assures adequate ventilation	1	0
	c. Initiates appropriate oxygen therapy	1	0
6.	Assesses Circulation		
	a. Assesses for and controls major bleeding	1	0
	b. Checks pulse	1	0
	c. Assesses skin (either color, temperature, or condition)	1	0
7.	Identifies patient priority/makes treatment/ transport decision	1	0
History Taking			
8.	History of the present illness		
	a. Onset	1	0
	b. Provokes	1	0
	c. Quality	1	0
	d. Radiation	1	0
	e. Severity	1	0

Items Evaluated	Possible	Awarded
f. Time	1	0
g. Clarifying questions of associated signs and symptoms related to OPQRST	2	0
9. Past Medical History		
a. Signs and Symptoms	1	0
b. Allergies	1	0
c. Medications	1	0
d. Pertinent Medical History	1	0
e. Last Oral Intake	1	0
f. Events Leading to Present Illness	1	0
10. Secondary Assessment (<i>Assesses affected body part/system</i>)		
a. Cardiovascular		
b. Neurological		
c. Integumentary		
d. Reproductive		
e. Pulmonary		
f. Musculoskeletal		
g. GI/GU		
h. Psychological/Social		
11. Vital Signs		
a. Pulse	1	0
b. Blood pressure	1	0
c. Respiratory rate and quality	1	0
12. States field impression of patient	1	0
13. Interventions (verbalizes proper intervention/treatment)	1	0
14. Appropriate verbal and nonverbal communication with patient and other personnel.	2	0
15. Reassessment		
a. Determines how and when to reassess the patient to determine changes in condition	1	0
16. Provides report to Emergency Department		
a. Unit identification	1	0
b. Patient's age and sex	1	0
c. Chief complaint	1	0
d. Mental status	1	0

Items Evaluated	Possible	Awarded
e. Vital signs	1 0	
f. Treatment in progress	1 0	
g. Estimated time of arrival	1 0	
TOTAL POINTS -- SKILL II 70% Mastery for Skill II = 35	50	

***If a competitor jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*

EMERGENCY MEDICAL TECHNICIAN

Team #: _____ Section #: _____

Judge's Signature: _____

Skill III: BVM Ventilation: Apneic Adult Patient	Possible	Awarded
1. Practiced body substance isolation precautions throughout skill	1 0	
2. Checks responsiveness	1 0	
3. Requests additional EMS assistance	1 0	
4. Checks breathing and pulse simultaneously for no more than 10 seconds.	1 0	
Judge states "The patient is unresponsive, apneic and has a weak pulse of 60."		
5. Opens airway properly	1 0	
Judge states "The mouth is full of secretions and vomitus."		
6. Prepares rigid suction catheter	1 0	
7. Turns on power to suction device or retrieves manual suction device.	1 0	
8. Inserts rigid suction catheter without applying suction	1 0	
9. Suctions the mouth and oropharynx (quickly and adequately)	1 0	
Judge states "The mouth and oropharynx are clear."		
10. Opens the airway manually	1 0	
11. Inserts oropharyngeal airway	1 0	
Judge states "No gag reflex is present and the patient accepts the airway adjunct."		
12. Ventilates the patient immediately using a BVM device unattached to oxygen*	1 0	
Judge states "Ventilation is being properly performed without difficulty."		
13. Rechecks pulse for no more than 10 seconds	1 0	
14. Attaches the BVM assembly to oxygen @ 15L/min	1 0	
15. Ventilates the patient adequately		
a. Proper volume to make chest rise	1 0	
b. Rate of 10-12/min, but not to exceed 12/min	1 0	
16. Initiates ventilation within 30 seconds after taking body substance isolation precautions and does not interrupt ventilations for greater than 30 seconds at any time	1 0	
17. Appropriate verbal and nonverbal communication with patient and other personnel.	2 0	
TOTAL POINTS – SKILL III	19	
70% Mastery for Skill III = 13.3		

*Award this point if competitor elects to ventilate initially with BVM attached to reservoir and oxygen, as long as first ventilation is delivered within 30 seconds.

**If a competitor jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.

EMERGENCY MEDICAL TECHNICIAN

Team #: _____ Section #: _____

Judge's Signature: _____

Skill IV-A: Joint Immobilization		Possible	Awarded
1.	Practiced body substance isolation precautions throughout skill	1 0	
2.	Directed application of manual stabilization of the injury.	1 0	
3.	Assessed distal motor, sensory and circulatory functions in injured extremity.	1 0	
<i>Judge states, "Motor, sensory and circulatory functions are present and normal."</i>			
4.	Selected the proper splinting material	1 0	
5.	Immobilized the site of the injury	1 0	
6.	Immobilized the bone above the injury site	1 0	
7.	Immobilized the bone below the injury site	1 0	
8.	Secured the entire injured extremity	1 0	
9.	Reassessed distal motor, sensory and circulatory functions in the injured extremity	1 0	
<i>Judge states "Motor, sensory and circulatory functions are present and normal."</i>			
10.	Appropriate verbal and nonverbal communication with patient and other personnel.	2 0	
TOTAL POINTS -- SKILL IV-A		11	
70% Mastery for Skill IV-A = 7.7			

Note: The assistant in this skill is the other competitor.

***If a competitor jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*

EMERGENCY MEDICAL TECHNICIAN

Team #: _____ Section #: _____

Judge's Signature: _____

Skill IV-B: Long Bone Immobilization		Possible	Awarded
1.	Practiced body substance isolation precautions throughout skill	1 0	
2.	Directed immediate application of manual stabilization of the injury.	1 0	
3.	Assessed distal motor, sensory and circulatory function in the injured extremity	1 0	
<i>Judge states "Motor, sensory and circulatory functions are present and normal."</i>			
4.	Selected proper splinting material	1 0	
5.	Immobilized the site of the injury	1 0	
6.	Immobilized the bone above the injured site	1 0	
7.	Immobilized the bone below the injured site	1 0	
8.	Secured the entire injured extremity	1 0	
9.	Immobilized the hand/foot in the position of function	1 0	
10.	Reassessed distal motor, sensory and circulatory functions to the injured extremity	1 0	
<i>Judge states "Motor, sensory and circulatory functions are present and normal."</i>			
11.	Appropriate verbal and nonverbal communication with patient and other personnel.	2 0	
TOTAL POINTS - SKILL IV-B		12	
70% Mastery for Skill IV-B = 8.4			

***If a competitor jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*

EMERGENCY MEDICAL TECHNICIAN

Team #: _____ Section #: _____

Judge's Signature: _____

Skill V: Bleeding Control/Shock Management	Possible	Awarded
1. Practiced body substance isolation precautions throughout skill	1 0	
2. Applies direct pressure to the wound	1 0	
<i>Judge states "The wound continues to bleed."</i>		
3. Applies tourniquet.	1 0	
<i>Judge states "The patient is exhibiting signs and symptoms of hypo-perfusion."</i>		
4. Properly positions the patient	1 0	
5. Applies high concentration oxygen	1 0	
6. Initiates steps to prevent heat loss from the patient	1 0	
7. Indicates need for immediate transportation	1 0	
8. Appropriate verbal and nonverbal communication with patient and other personnel.	2 0	
TOTAL POINTS - SKILL V Mastery for Skill V – 6.3	9	

***If a competitor jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*

EMERGENCY MEDICAL TECHNICIAN

Team #: _____ Section #: _____

Judge's Signature: _____

Skill VI Cardiac Arrest Management/AED		Possible	Awarded
1.	Practiced body substance isolation precautions throughout skill	1 0	
2.	Determines the scene/situation is safe	1 0	
3.	Checks patient responsiveness	1 0	
4.	Directs assistant to retrieve AED.	1 0	
5.	Requests additional EMS assistance	1 0	
6.	Checks for breathing and pulse simultaneously for no more than 10 seconds	1 0	
<i>Judge states "The patient is unresponsive, apneic and pulseless."</i>			
7.	Immediately begins chest compressions of adequate depth and rate, allowing the chest to recoil completely	1 0	
8.	Performs approx. 2 minutes of high quality, 1 rescuer adult CPR		
a.	Adequate depth and rate	1 0	
b.	Correct compression-ventilation ratio	1 0	
c.	Allows the chest to recoil completely	1 0	
d.	Adequate volumes for each breath	1 0	
e.	Minimal interruption of no more than 10 seconds throughout	1 0	
<i>Note: After approx. 2 minutes or 5 cycles, assess patient and the 2nd rescuer resumes compressions while first rescuer operates the AED.</i>			
9.	Turns on AED power	1 0	
10.	Follows prompts and correctly attaches AED to patient	1 0	
11.	Directs rescuer to stop CPR and ensures all individuals are clear of the patient during analysis of the rhythm	1 0	
12.	a. Ensures that all individuals are clear of the patient and verbalizes "All clear."	1 0	
b.	Delivers shock from AED	1 0	
13.	Immediately directs rescuer to resume chest compressions	1 0	
14.	Appropriate verbal and nonverbal communication with patient and other personnel.	2 0	

Items Evaluated	Possible	Awarded
15. Verbalizes transportation of patient when one of the following are met: 3 shocks administered, 3 consecutive NSI or regains pulse	1 0	
TOTAL POINTS -- SKILL VI 70% Mastery for Skill VI – 14.7	21	

***If a competitor jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*

EMERGENCY MEDICAL TECHNICIAN

Team #: _____ Section #: _____ Judge's Signature: _____

Note: The tank used for the skill will be empty and steps will be simulated as appropriate.

Skill VII: Oxygen Administration by Non-Rebreather Mask		Possible		Awarded
1.	Practiced body substance isolation precautions throughout skill	1	0	
2.	Gathers appropriate equipment.	1	0	
3.	Verbalizes cracked valve on the oxygen tank.	1	0	
4.	Assembles the regulator to the oxygen tank.	2	0	
5.	Verbalizes and simulates opening the oxygen tank valve.	1	0	
6.	Verbalizes and simulates checking the oxygen tank pressure.	1	0	
7.	Verbalizes and simulates checking for leaks.	1	0	
8.	Attached non-rebreather mask to correct port of regulator.	2	0	
9.	Verbalizes and simulated turning on oxygen flow to pre-fill reservoir bag.	1	0	
10.	Verbalizes and simulates adjusting regulator to assure oxygen flow rate of at least 10L per minute.	2	0	
11.	Attaches mask to patient's face and adjusts to fit snugly.	2	0	
12.	Appropriate verbal and nonverbal communication with patient and other personnel.	2	0	
TOTAL POINTS - SKILL VII		17		
70% Mastery for Skill VII – 11.9				

***If a competitor jeopardizes the patient's or his/her own safety and does not take immediate action to correct the error, the total points for the skill or specific subpart(s) of the skill will be deducted.*