

Phlebotomy



New Event for 2023 – 2024

These guidelines are written for ILC. States may modify events or have different event processes and deadlines. Be sure to check with your Local/State Advisor (or state website) to determine how the event is implemented for the regional/area or state conference.

Event Summary

The phlebotomist event provides members with the opportunity to gain knowledge and skills required in phlebotomy. This competitive event consists of 2 rounds. Round One will be a written, multiple-choice test and top scoring competitors will advance to Round Two for the skills assessment. This event aims to inspire members to use critical thinking skills and be equipped with insight to treat patients in a clinical setting.

Sponsorship

This competitive event is sponsored by the [American Medical Technologists](#).



Dress Code

Competitors shall wear proper business attire or official HOSA uniform or attire appropriate to the occupational area during testing. Round 2 skill events require attire appropriate to the occupational area be worn. Bonus points will be awarded for [proper dress](#).

Competitors must provide:

- ☐ A [photo ID](#)
- ☐ Non-latex gloves, gown, goggles or safety glasses, mask, eye shield or face guard
- ☐ Two #2 lead pencils (not mechanical) with eraser for both rounds
- ☐ Sterile gloves

General Rules

1. Competitors in this event must be active members of HOSA and in good standing.
2. **Eligible Divisions:** 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 \(GRR\)](#)."

- A. Per the [GRRs](#) and [Appendix H](#), HOSA members may request accommodation in any competitive event. To learn the definition of an accommodation, please read [Appendix H](#). To request accommodation for the International Leadership Conference, [submit the request form here](#) by May 15 at midnight EST.
 - B. To request accommodation for any regional/area or state level conferences, submit the request form [here](#) by your state published deadline. Accommodations must first be done at state in order to be considered for ILC.
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 advanced practice nursing course should compete in Clinical Nursing and not Nursing Assisting.

Official References

6. All official references are used in the development of the written test and skill rating sheets. AMT has developed numerous resources to help competitors prepare and event staff organize this event. Visit <https://americanmedtech.org/HOSA> for more information.
7. [Booth, Kathryn and Lillian Mundt. *Phlebotomy: A Competency Based Approach*. McGraw Hill, Latest edition.](#)
8. [McCall, Ruth. *Phlebotomy Essentials*. Jones & Bartlett, Latest edition.](#)

Round One Test

9. [Test Instructions](#): The written test will consist of 50 multiple choice items in a maximum of 60 minutes.
10. **Time Remaining Announcements**: There will be NO verbal announcements for time remaining during ILC testing. All ILC testing will be completed in the Testing Center and competitors are responsible for monitoring their own time.
11. **Written Test Plan**
 - Obtaining Blood Samples.....42%
 - Specimen Collection & Processing.....16%
 - Time Management & Assignment Organization.....8%
 - Professional Communications.....4%
 - Clerical Skills & Duties.....4%
 - Safety Standards & Procedures.....10%
 - Legal, Ethical, & Professional Considerations.....8%
 - Terminology, Anatomy, & Physiology.....8%
12. The test score from Round One will be used to qualify the competitor for Round Two.
13. **Sample Test Questions**
 1. Which of the following veins would be last-choice for venipuncture due to being close to the median nerve and the brachial artery? (McCall pp 233)
 - A. Median Cubital
 - B. Median Basilic Vein**
 - C. Median Vein
 - D. Median Cephalic Vein

2. Which of the following tubes would you invert gently six to eight times immediately after the blood draw? (McCall pp 458-459)
 - A. Yellow top
 - B. Royal blue top
 - C. Plain red top
 - D. Lavender top**

3. Which of the following White Blood Cells release histamine and heparin and are normally the least numerous? (Booth 138-139)
 - A. Lymphocytes
 - B. Eosinophils
 - C. Basophils**
 - D. Neutrophils

Round Two Skills

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

Skill I:	Handwashing	4 minutes
Skill II:	Tourniquet Application	2 minutes
Skill III:	Routine ETS Venipuncture, Including Order of Draw	10 minutes
Skill IV:	Steps to Follow if a Patient Starts to Faint During Venipuncture	5 minutes
Skill V:	Heel Puncture	5 minutes
Skill VI:	Removing Contaminated Gloves	3 minutes
Skill VII:	Accidental Arterial Stick	5 minutes
Skill VIII:	24 Hour Urine Collection	5 minutes

(FOR ALL SKILLS, BODY FLUIDS WILL BE A SIMULATED PRODUCT)

15. 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 competitor and will include a challenging component that will require the competitors to apply critical thinking skills. A sample scenario can be found [here](#).
16. Timing will begin when the scenario is presented to the competitor and will be stopped at the end of the time allowed.
17. The scenario is a secret topic that includes the Physician's Orders for the skill(s) to be performed. Competitors MAY NOT discuss or reveal the secret topic until after the event has concluded or will face penalties per the [GRRs](#).
18. 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's condition and will be included in the scenario or judge script.

Final Scoring

19. The competitor 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.
20. Final rank is determined by adding the round one test score plus round two skill score. In case of a tie, the highest test score will be used to determine the rank.

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 Competitor # _____ Judge's Signature _____

Skill I: Handwashing (Time: 4 minutes)		Possible	Awarded
1.	Removed all jewelry.	2 0	
2.	Never allowed clothing to touch the sink, nor touched the inside of the sink with the hands.	2 0	
3.	Adjusted the water temperature to warm.	2 0	
4.	Wet hands liberally with fingertips pointing down.	2 0	
5.	Applied soap and worked up lather using a circular motion with friction.	2 0	
6.	Interlaced fingers to clean between them and rubbed vigorously to remove microorganisms.	2 0	
7.	Scratched the nails of one hand against the palm of the other hand to work soap under the nails.	2 0	
8.	Repeated scratching nails on the other hand.	2 0	
9.	Thoroughly washed the wrists.	2 0	
10.	Washed for 2 minutes at the start of workday, 20 seconds between patients and procedures, or 1 to 2 minutes is soiled. <i>Judge will state if start of workday, between patients, and if soiled.</i>	2 0	
11.	Rinsed hands with hands pointed down and lower than elbows.	2 0	
12.	Dried hands and wrists using a patting motion with a clean paper towel.	2 0	
13.	Discarded paper towel without touching receptacle.	2 0	
14.	If the sink is not foot operated, used a clean disposable towel to turn off the water faucet.	2 0	
TOTAL POINTS -- SKILL I		28	
70% Mastery for Skill I = 19.6			

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Steps are listed for right-handed individual. If left-handed, substitute dominant and nondominant, for right and left references.

Skill II: Tourniquet Application (Time: 2 minutes)		Possible		Awarded
1.	Placed the tourniquet around the arm 3-4 inches above the intended venipuncture site.	2	0	
2.	Grasped one side of the tourniquet in each hand a few inches from the end.	2	0	
3.	Applied a small amount of tension and maintained throughout the process.	2	0	
4.	Brought the two sides together and grasped them both between the thumb and forefinger of the right hand.	2	0	
5.	Reached over the right hand, and grasped the right side of the tourniquet between the thumb and forefinger of the left hand and released it from the grip of the right hand.	2	0	
6.	Crossed the left end over the right end near the left index finger, grasped both sides together between the thumb and forefinger of the left hand, close to the patient's arm.	2	0	
7.	Used either the left middle finger or the right index finger to tuck a portion of the left side under the right side and pulled into a loop.	2	0	
8.	Ends of torniquet point toward the shoulder to avoid contamination of the blood collection site.	2	0	
9.	Verbalized to the judge that tourniquet remained on arm no longer than one minute.	2	0	
10.	Removed tourniquet.	2	0	
TOTAL POINTS -- SKILL II		20		
70% Mastery for Skill II = 14				

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Competitor # _____ Judge's Signature _____

Competitors will be given tube colors in the scenario and will be responsible for the correct order of the draw.

Skill III: Routine ETS Venipuncture(Time: 10 minutes)		Possible	Awarded
1.	Reviewed test request/requisition (via the competition scenario)	2 0	
2.	Approached, greeted patient and identified self.	2 0	
3.	Asked patient to state their full name and date of birth and to spell first and last name.	2 0	
4.	Verbally matched the patient identification to the requisition.	2 0	
5.	Explained the procedure and obtained consent.	2 0	
6.	Verified collection requirements and identified sensitivities and potential problems.	2 0	
7.	Sanitized hands and put on gloves.	2 0	
8.	Positioned the patient with arm downward in a straight line from shoulder to wrist.	2 0	
9.	Applied tourniquet 3 to 4 inches above the venipuncture, feeling slightly tight but not rolled or twisted.	2 0	
10.	Asked patient to clench fist making veins easier to see and feel and to keep them from rolling.	1 0	
11.	Selected the vein in the antecubital area by palpating with the tip of the index finger.	1 0	
12.	Released tourniquet, and asked patient to open the fist.	1 0	
13.	Visualized the location of the vein and noted the position in reference to hair, skin creases, scars, or a mole.	1 0	
14.	Cleaned selected puncture site using back and forth friction with adequate pressure to cleanse site.	2 0	
15.	Allowed the site to air dry.	1 0	
16.	Prepared the equipment by selecting appropriate equipment and attaching the needle to an ETS holder.	1 0	
17.	Reapplied the tourniquet.	1 0	
18.	Uncapped and inspected the needle.	2 0	
19.	Asked patient to remake a fist.	1 0	
20.	Drew the skin taut with the thumb by placing it 1 to 2 inches below the puncture site.	1 0	

Skill III: Routine ETS Venipuncture (con't)		Possible	Awarded
21.	Warned the patient of needlestick.	1 0	
22.	Lined needle up with the vein and inserted needle with the bevel up using a smooth forward motion.	2 0	
23.	Stopped advancing the needle when a decrease in resistance is felt.	2 0	
24.	Grasped the short wings of the tube holder with the index and middle fingers.	1 0	
25.	Pushed the tube into the needle with the thumb.	1 0	
26.	Prevented the assembly from moving throughout venipuncture.	1 0	
27.	Established blood flow and filled the tube until the vacuum was exhausted and the blood flow stopped.	1 0	
28.	Completed the blood draw in the correct order (the scenario will use all of the colored tubes). a. Light blue b. Red, red/gray mottled or gold stopper c. Light or dark green top, green/gray mottled d. Lavender/purple, pink, or white/pearl top	8 0	
29.	Filled, removed, and mixed tubes per manufacturer's instructions.	2 0	
30.	Removed the tourniquet and asked the patient to open their hand.	1 0	
31.	When the last tube has filled, removed the tube from the needle.	1 0	
32.	Removed the needle in a smooth motion and maintaining a 15 to 30 degree angle.	1 0	
33.	Placed clean folded gauze pad over the site with free hand and applied pressure.	1 0	
34.	Instructed patient to maintain pressure on venipuncture site until bleeding stops.	2 0	
35.	Activated needle safety feature.	2 0	
36.	Discarded blood collection unit in a puncture- and leak-proof receptacle.	2 0	
37.	Labeled and prepared tubes for handling and transport before leaving patient.	1 0	
38.	Checked the patient's arm for no additional bleeding and applied bandage.	2 0	
39.	Instructed patient to maintain pressure for a minimum of 15 minutes and to protect arm from exertion.	2 0	
40.	Disposed of used materials appropriately and repositioned moved items.	2 0	
41.	Thanked patient.	2 0	
42.	Removed and disposed of gloves, and washed hands or used alcohol-based handrub for hand hygiene.	2 0	
43.	Used appropriate verbal and nonverbal communication with patient and other personnel.	2 0	
44.	Practiced standard precautions throughout skill.	2 0	
TOTAL POINTS – SKILL III 70% Mastery for Skill III = 52.5		75	

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Competitor will be wearing gloves as they have begun the routine ETS venipuncture. Patient is sitting in chair.

Skill IV: Fainting During Venipuncture Skill (Time: 5 minutes)		Possible	Awarded
1.	Verbally recognized a minimum of four signs and symptoms of syncope. (Paleness, perspiration, hyperventilation, vertigo, dizziness, light-headedness, nausea, tunnel vision, fading hearing).	4	0
2.	Judge states, "heavy perspiration, pale skin, and shallow or fast breathing is noted". Immediately released the tourniquet.	2	0
3.	Removed the needle and activated the safety device and discarded.	2	0
4.	Called for help.	2	0
5.	Applied pressure to the site.	2	0
6.	Stood in front of the phlebotomy chair or next to the bedside to prevent patient from falling or slipping.	2	0
7.	Lower the patient's head and arms by placing both between the patient's knees.	2	0
8.	Instructed patient to breathe deeply.	2	0
9.	Loosened tight clothing.	2	0
10.	Verbalized to judge that no ammonia inhalant was used.	2	0
11.	Applied a cold compress or wet washcloth to the forehead and back of the neck if available.	2	0
12.	Provided the patient with basin, trash can or other container if experiences nausea and vomiting.	2	0
13.	Remained with patient until appropriate personnel arrives. Judge states, "Outpatient supervisor OR charge nurse has arrived".	2	0
14.	Documented incident on HOSA chart.	2	0
15.	Removed and disposed of gloves, and washed hands or used alcohol-based handrub for hand hygiene.	2	0
16.	Used appropriate verbal and nonverbal communication with patient and other personnel.	2	0
17.	Practiced standard precautions throughout skill.	2	0
TOTAL POINTS – SKILL IV 70% Mastery for Skill IV = 25.2		36	

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Skill V: Heel Puncture (Time: 5 minutes)		Possible	Awarded
1.	Reviewed test request.	2 0	
2.	Approached, greeted, and identified patient using two identifiers.	2 0	
3.	Explained the procedure and obtained consent from parents if present.	2 0	
4.	Verified collection requirements and identified sensitivities and potential problems.	2 0	
5.	Prepared needed equipment and supplies.	2 0	
6.	Sanitized hands and put on gloves.	2 0	
7.	Positioned the patient - infant lying face up with the foot lower than the torso.	1 0	
8.	Select puncture site – medial or lateral plantar surface of the heel (avoiding bruised, swollen areas, or previous puncture site).	2 0	
9.	Warmed the site for three to five minutes by use of a wet washcloth, towel, or diaper, or a commercial heel-warming device. Judge states "It has been five minutes".	1 0	
10.	Cleaned site with alcohol pad with back and forth friction and air dried the site.	2 0	
11.	Grasped the heel firmly with nondominant hand, encircling the heel by wrapping your index finger around the arch and your thumb around the bottom with other fingers around the foot.	2 0	
12.	Held the lancet between the thumb and index fingers of the dominant hand.	1 0	
13.	Placed the lancet flat against the skin to ensure good contact and activated the release mechanism.	1 0	
14.	Puncture was no more than 2mm deep in the infant's heel.	2 0	
15.	Removed lancet from skin and discarded the lancet in a sharp container immediately after puncture.	2 0	
16.	Lower the heel and applied gently pressure until blood drop forms.	1 0	
17.	Verbalized wiped away the first drop of blood with a gauze pad.	1 0	
18.	Formed a drop of blood and scooped it into the blood collection tube to collect blood for the requested laboratory test.	1 0	
19.	Filled and mixed tubes/containers in order of draw (per scenario).	1 0	
20.	Placed gauze, elevated the heel and applied pressure until bleeding stops.	2 0	

Skill V: Heel Puncture (con't)		Possible		Awarded
21.	Labeled and prepared the specimen for handling and transport.	1	0	
22.	Checked the site to ensure bleeding has stopped. (no bandage is applied due to risk of choking).	2	0	
23.	Discarded used materials.	2	0	
24.	Thanked the patient, and parent or guardian.	2	0	
25.	Removed and disposed of gloves, and washed hands or used alcohol-based handrub for hand hygiene.	2	0	
26.	Documented incident on HOSA chart.	2	0	
27.	Used appropriate verbal and nonverbal communication with patient and other personnel.	2	0	
28.	Practiced standard precautions throughout skill.	2	0	
TOTAL POINTS – SKILL V 70% Mastery for Skill V= 32.9		47		

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Section # _____ Division: _____ SS _____ PS/C
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Venipuncture has been completed and soiled gloves are to be removed.

Skill VI: Removing Contaminated Gloves (Time: 3 minutes)		Possible	Awarded
1.	Grasped the outside of one glove below the wrist with the opposite gloved hand.	2 0	
2.	Pulled the glove inside out, over the hand.	2 0	
3.	Pulled the glove off the hand and held in the gloved hand.	2 0	
4.	Slipped fingers of nongloved hand under the wrist of the gloved hand.	2 0	
5.	Pulled the glove inside out over the hand so that the glove ended up inside the second glove, with no exterior glove surfaces exposed.	2 0	
6.	Dropped contaminated gloves into the proper waste receptacle.	2 0	
7.	Washed hands or used alcohol-based handrub for hand hygiene.	2 0	
8.	No contact was made with the contaminated area throughout the procedure.	2 0	
TOTAL POINTS -- SKILL VI		16	
70% Mastery for Skill VI = 11.2			

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Incident occurs during a venipuncture. Scenario indicates possible accidental arterial stick.

Skill VII: Accidental Arterial Stick (Time: 10 minutes)		Possible	Awarded
1.	Verbalized indications of accidental arterial stick- rapidly forming hematoma, bright red blood pulsing into the collection tube.	2 0	
2.	Released the tourniquet.	2 0	
3.	Removed the needle, activated the safety device, and discarded the needle in the sharps container.	2 0	
4.	Applied pressure to the puncture site for minimum of 5 minutes, or until the bleeding stopped. Judge reports, "bleeding has stopped".	2 0	
5.	When the bleeding stopped, applied a taut gauze dressing.	2 0	
6.	Instructed patient to keep arm relatively still for short period of time.	2 0	
7.	Informed charge nurse (judge) of the occurrence.	1 0	
8.	Verbalized checked with laboratory supervisor (judge) to determine if blood is usable. Judge states, "bloodwork is acceptable".	1 0	
9.	Labeled the tube with patient name and date of birth, and "arterial blood."	2 0	
10.	Removed and disposed of gloves, and washed hands or used alcohol-based handrub for hand hygiene.	2 0	
11.	Documented incident on HOSA chart.	2 0	
12.	Used appropriate verbal and nonverbal communication with patient and other personnel.	2 0	
13.	Practiced standard precautions throughout skill.	2 0	
TOTAL POINTS -- SKILL VII		24	
70% Mastery for Skill VII = 16.8			

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Skill VIII: 24 Hour Urine Collection (Time: 3 minutes)		Possible	Awarded
1.	Reviewed test request.	2 0	
2.	Approached, greeted patient, and identified self.	2 0	
3.	Identified patient by asking patient to state their full name and date of birth and to spell first and last name.	2 0	
4.	Explained the procedure and obtained consent.	2 0	
5.	Labeled the container with patient name and date of birth.	1 0	
6.	Labeled urine container with specific preservative and any precautions (per scenario).	2 0	
7.	Instructed patient not to urinate directly into the container due to risk of splashing.	2 0	
8.	Instructed patient to void upon awakening and to discard urine.	2 0	
9.	Noted the time and date on the specimen label for first urination and placed it on the container.	2 0	
10.	Instructed patient to collect all urine voided for the next 24 hours.	2 0	
11.	Instructed patient to refrigerate the specimen throughout the collection period if required (per scenario). Placed in refrigerator or in chest placed in the bathtub.	2 0	
12.	Instructed patient to collect urine prior to bowel movement not after.	1 0	
13.	Instructed patient to drink a normal amount of fluid unless directed otherwise.	1 0	
14.	Instructed patient on second morning to void at the same time and add to collection container and seal container.	2 0	
15.	Instructed patient inform staff test is complete for transport to the laboratory.	2 0	
16.	Used appropriate verbal and nonverbal communication with patient and other personnel.	2 0	
17.	Practiced standard precautions throughout skill.	2 0	
TOTAL POINTS -- SKILL VIII		31	
70% Mastery for Skill VIII = 21.7			

Competitor ID # _____

HOSA Chart Notes

[illegible]