

**Maximum time limit to perform task: 12 minutes**

**Assignment for competing team:**

EMS Dispatch Center has received a call on emergency line and is sending you to event:

**Congress centre, congress attendee tripped over chair, lying on floor, not moving, unconscious but breathing.**

**EMS was called by a congress center employee.**

**Your tasks (must be provided in maximum time limit to perform task):**

- Assess scene and correct work management on site.
- Examine and treat patient(s).
- Define working and differential diagnoses, administer therapy.
- If hospitalization is needed, define direction.
- Inform the judge of any further steps.

**Scene conditions:**

Date: September 18, 2023 Time: 01:30pm Outside temperature °C/°F: 24/75 Weather: clear sky, no wind

Call to address time: 5 minutes

All requests and information to or from EMS Dispatch must be addressed to judge marked DISPATCH.

**On-Scene Situation:**

A congress attendee, teacher, lying on the floor, he seems to be sleepy, slurred speech, small laceration on his forehead. Teacher's head is supported by his jacket by a congress centre employee who has called the EMS, his bag is lying nearby. Alcohol odour present. After searching, crew can find in the pocket/bag insulin and a bottle of liquid, after opening alcohol can be recognized.

**Correct procedure:**

If crew proceed properly (give glucose, find insulin and alcohol), teacher regains full consciousness. Within diagnosis (medical report) suspicion of possible chronic problem with alcohol. He visited his primary care physician 14 days ago with sinusitis, is still on antibiotics, and suffers from diabetes.

If the crew doesn't find medications or alcohol, the patient will not talk about them.

**Physical examination:**

Teacher is sleepy, pupil isocoric, slowed reaction to light, breathing freely, clean, periphery pulse palpable well, pale skin, sweating, small abrasions on forehead, no other injuries.

**Vital functions:**

	After arrival	During task
BP (mm Hg)	140/90	-
Breathing (min)	18	-
CRT (s)	2	-
ECG	Sinus	-
GCS	E3 V3 M5 = 11	-
Glycaemia (mmol/l / mg/dl)	1,9/34	-
HR (min)	110	-
SpO2 (%)	96	-
Temperature (°C/°F)	36,6/98	-

**Key words:**

Hypoglycaemia, alcohol.

Team scoring		1	2	3	4	5	Max. points (w/o time)	Correct decisions and performance
							1 400	
1	Orientation at the site, organization of activities	Evaluation of situation on site	Obtain the patient's history from the employee	Finding insulin	Finding alcohol		140	Orientation at the scene, get information from congress centre employee, find medication and alcohol in jacket and bag.
		20	20	60	40			
2	Primary examination	LOC, breathing, BP, HR, SpO2, 5 x 30	Glycaemia	Examination of the head (sight, palpation)	Palpation chest, abdomen, pelvis, limbs 4 x 30	GCS, pupils 2 x 30	420	Complete examination includes: LOC (level of consciousness), auscultation, BP, pulse, SpO2, glycaemia, physical examination of the head, chest, abdomen, pelvis, extremities, GCS and pupils.
		150	60	30	120	60		
3	Therapy	Glucose 40% 60 - 120 ml IV	Glucagon 1 dose IM	Laceration injury on forehead			230	Glucose 40% IV, 60 - 120 ml (after 60 ml regains full consciousness), eventually Glucagon one dose. Treating a wound on his forehead.
		200	100	30				
4	Patient history, secondary examination (after return to full consciousness)	Personal, drug, allergies and abuses history 4 x 30	LOC: site, time, personality 3 x 30	Neurological examination - FAST			270	Patient history including permanent treatment, allergic history, ingestion of alcohol, drugs, detect diabetes treated with insulin. Final examination, check for full consciousness.
		120	90	60				
5	Working diagnosis, direction	Hypoglycaemia within DM	Alcohol intoxication	Laceration wound on forehead	Direction: nearest ED		190	Transport by ground to nearest ED. Serious brain injury is unlikely due to mechanism of injury.
		100	30	30	30			
6	Team cooperation and communication	Clear and obvious teamleader	Crew communicates as a team and passes information to the leader	Leader receives and responds to information from the crew	Well managed and controlled patient handling	Team communication with patients and other actors	50	Crew cooperation as a team, obvious and visible teamleader. Unambiguous and clear communication with judges (no repeated questions about the same - usually vitals), patients and others. Introduce after arrival, informing the patient at every move, lift, touch, examination, procedure, transport and explaining why is this done.
		10	10	10	10	10		
7	Actors - players	Teacher	Employee				100	Subjective evaluation by actors - players (simulated patients, relatives, bystanders, witnesses etc.).
		90	10					

**Maximum time limit to perform task: 12 minutes**

**Assignment for competing team:**

EMS Dispatch Center has received a call on emergency line and is sending you to event:

**A distraught woman called. She found her husband lying under a tree in the garden, where he had gone to prune branches with a saw. She doesn't know what's wrong with him, he's restless, not communicating, maybe breathing, no visible injuries or blood.**

**Your tasks (must be provided in maximum time limit to perform task):**

- Assess scene and correct work management on site.
- Examine and treat patient(s).
- Define working and differential diagnoses, administer therapy.
- If hospitalization is needed, define direction.
- Inform the judge of any further steps.

**Scene conditions:**

Date: September 18, 2023 Time: 01:30pm Outside temperature °C/°F: 24/75 Weather: clear sky, no wind

Call to address time: 8 minutes

All requests and information to or from EMS Dispatch must be addressed to judge marked DISPATCH.

**On-Scene Situation:**

Middle-aged man lying under a tree, beside him a saw and a branch. Sopororous, cyanotic, stertorous breathing, more less gasping, cold periphery, sweaty, peripheric pulse filiform, badly palpable, without reaction to voice, tachycardic, without injury, isocoric pupils, evident edema of neck and face (alternatively wasp on the skin of the neck).

**Physical examination:**

Patient GCS 6 (no opening eyes - 1, no response to voice - 1, non-targeted response to pain - 4).

Extreme edema of neck and face, visible stings, cyanotic, extreme sweating. Neurological examination without lateralization, without injury at chest, abdomen and limbs. No breath sounds by auscultation, percussion normal findings, retraction during inspirium, abdomen normal findings, lower limbs without edemas. Homans negative.

Rescue breaths by mask impossible. ETI, laryngeal cannula and combitube impossible to introduce.

**Patient history (from wife):**

Personal data Jan Marsalek, born on 07.02.1983, European Health Insurance Card VZP (111).  
 Medical history Husband doesn't smoke, doesn't drink, doesn't take drugs, doesn't have any illness.  
 Medications Negative  
 Allergies Negative  
 Family medical history Negative

Vital functions:	After arrival	During task
BP (mm Hg)	60 systolic by palpation	-
Breathing (min)	5 (gasping)	-
CRT (s)	3	-
ECG	Sinus tachycardia	-
GCS	E1 V1 M4 = 6	-
Glycaemia (mmol/l / mg/dl)	6,6/119	-
HR (min)	130	-
SpO2 (%)	55	-
Temperature (°C/°F)	36,6/98	-

**Key words:**

Emergency treatment in prehospital settings, assessment of the situation, urgent treatment, diagnosis of anaphylactic reaction to bee stings, emergency coniopunction or coniotomy on model, correct treatment.

Team scoring		1	2	3	4	5	Max. points (w/o time)	Correct decisions and performance
							1 400	
1	Orientation at the site, organization of activities	Evaluation of situation on site	Obtain the patient's history from the wife	Basic examination to exclude trauma	Neck edema examination	Stinger (insect) finding	130	Evaluation of situation on site, trauma exclusion, neck edema examination and stinger (insect) finding.
		20	20	30	30	30		
2	Physical examination, diagnosis	1) SpO2 2) Monitor 3) BP 3 x 30	1) Primary examination 2) O2 by mask 2 x 30	Systematic and correct physical examination: head, neck, chest, abdomen, limbs 5 x 30	Diagnosis		400	Complete and correct physical examination. Working diagnosis: anaphylactic shock with airway obstruction.
		90	60	150	100			
3	Airway management	Invasive airway management up to 3rd minute	Invasive airway management up to 4th minute	Invasive airway management up to 6th minute	Invasive airway management up to 8th minute	Over 8 minutes	300	Etiology of suffocation, impossibility to introduce any cannula by mouth, invasive coniotomy or puncture up to 3rd minute from the start of the task. Paramedic crews: online consultation is not a task, life-saving procedure have to be done immediately.
		300	200	100	50	0		
4	Therapy, direction	2 x IV line + crystalloids 30 + 30 + 30	Coniopuncture + ventilation 2 x 100	Alternative coniopuncture by cannulas	Epinephrine (Adrenalin) up to 3 x 0,1 mg IV or 0,5 mg IM	Direction: nearest ED	420	Practical execution of coniotomy, minimal 2 x IV access, 1.000 ml crystalloids, artificial ventilation, epinephrine (Adrenalin) IV or IM. Transport by ground to nearest ED.
		90	200	100	100	30		
5	Team cooperation and communication	Clear and obvious teamleader	Crew communicates as a team and passes information to the leader	Leader receives and responds to information from the crew	Well managed and controlled patient handling	Team communication with patients and other actors	50	Crew cooperation as a team, obvious and visible teamleader. Unambiguous and clear communication with judges (no repeated questions about the same - usually vitals), patients and others. Introduce after arrival, informing the patient at every move, lift, touch, examination, procedure, transport and explaining why is this done.
		10	10	10	10	10		
6	Actors - players	Patient	Wife				100	Subjective evaluation by actors - players (simulated patients, relatives, bystanders, witnesses etc.).
		80	20					

**Maximum time limit to perform task: 12 minutes**

**Assignment for competing team:**

EMS Dispatch Center has received a call on emergency line and is sending you to event:

**Mr. Karel Alberto is calling EMS to the flat of his friend Mr. Roman Quakino, who has just experienced weakness and confusion during Karel's visit.**

**Your tasks (must be provided in maximum time limit to perform task):**

- Assess scene and correct work management on site.
- Examine and treat patient(s).
- Define working and differential diagnoses, administer therapy.
- If hospitalization is needed, define direction and prepare patient for transport.
- Inform the judge of any further steps.

**Scene conditions:**

Date: September 18, 2023 Time: 01:30pm Outside temperature °C/°F: 24/75 Weather: clear sky, no wind

Call to address time: 5 minutes

All requests and information to or from EMS Dispatch must be addressed to judge marked DISPATCH.

**On-Scene Situation:**

The patient is sitting at the table, spontaneously breathing, fully conscious, with partial verbal perception. He does not speak, but understands and responds with a nod to simple questions, cooperates, complies with prompts.

**Correct procedure (see table for details):**

It is necessary to obtain full medical history (high blood pressure, ischaemic heart disease, MI, stroke, diabetes, operations/surgery, cancer), medicines taken (there is a paper in his wallet with a list of written medication) and allergies.

It is important to take a telephone number of his friend Karel, who witnessed his health problem and also of his relatives (in his wallet is a note with names Kacenk, Jenik).

Ask about pain, palpitations, shortness of breath, nausea/vomitus, fever.

**Clinical status upon arrival:**

Regular, palpable pulse on a. radialis, regular heart rate, no murmurs. Breathing clear, symmetrical, alveolar, no pathological phenomena. Abdomen soft, painless, freely palpable. Lower limbs without edemas and signs of inflammation.

Neurological examination (FAST): Expressive aphasia (he can not talk but he understands, can nod yes-no responses nonverbally). Isocoric pupils 2/2 mm constricting to light, ocular movements are normal, decreased teeth showing on the right side, tongue is put out in medial line, no tenderness and normal movements of cervical spine.

Upper extremities: Mingazzini test: Slow fall on the right side, weak R hand squeeze, hit test normal.

Lower extremities: Mingazzini test without fall, wide stance, requires assistance to walk, but no signs of paralysis. There is right hemisensory loss and no signs of meningeal irritation.

**CONCLUSION:** Fully conscious patient with normal circulation.

**FAST:** Expressive aphasia, right faciobrachial hemiparesis with right hemisensory loss.

**Patient history:**

Personal data	Roman Qakino, born on 17.09.1967, address: Jilkova 219, Brno, CZ. European Health Insurance Card VZP (111).
Medical history	He denies smoking or illicit drug abuse, suffers from high blood pressure, no history of heart disease, no history of stroke, no cancer treatment, he had an inguinal hernia surgery in 2009.
Medications	Betaloc ZOK 50 - metoprolol, Prestance 5/5 - amlodipine and perindopril, Sortis 40 - atorvastatin, Pantoprazol 40, Furosemid (a note in his wallet with a list of medications). If questioned, he denies taking Furosemide nowadays.
Allergies	Iodine - patient had an intravenous urography and had a problem (it is necessary to think about principles of emergency imaging and focus the question to IV contrast agent).
Recent health problem	He suddenly started with confusion - words in improper relation, a strange, uncertain walk to toilet, he says nonsenses. He had drunk a pint of beer during 2 hours of his friend's visit, he does not drink beer regularly. This happened about 30 minutes before EMS crew arrival. If asked ( goal directed ) he confirms chest pain and palpitations.
Family medical history	Not available

<b>Vital functions:</b>	<b>After arrival</b>	<b>During task 3 min after start of monitoring</b>
BP (mm Hg)	170/90	132/91
Breathing (min)	13	16
CRT (s)	1 (what you see)	1 (what you see)
ECG	Sinus	Atrial fibrillation with fast (rapid) ventricular response
GCS	E4 V5 M6 = 15/E4 V4 M6 = 14	E4 V5 M6 = 15/E4 V4 M6 = 14
Glycaemia (mmol/l / mg/dl)	6,7/121	6,7/121
HR (min)	80	approx. 103 (irregular)
SpO2 (%)	97	95
Temperature (°C/°F)	36,6/98	36,6/98

**Key words:**

Patient history, stroke management, communication with stroke or cerebrovascular treatment center, rapid and appropriate transport.

Team scoring		1	2	3	4	5	6	Max. points (w/o time)	Correct decisions and performance
								1 400	
1	Patient history	Medical history: 1) High BP 2) IHD 3) MI 4) Stroke 5) Diabetes 6) Cancer 7) Operations 8) Head trauma 8 x 20	Abuse: 1) Alcohol 2) Smoking 3) Illegal drugs 3 x 20	Allergy to iodine	A slip of paper with medications and allergies found and checked: 1) Medication 2) Recheck informations 3) Relatives phone numbers 3 x 30	Get contact info from a friend Karel (min. last name and cell phone)	Obtain the exact time of onset of the patient's current difficulties (30 minutes prior to EMS arrival)	460	Taking a patient's history at least to the extent specified above.
		160	60	60	90	30	60		
2	Examination, therapy	Neurological Assessment (FAST): 1) Right facial nerve paralysis 2) Right upper arm paresis 3) Right hemisensory loss 3 x 20	1) BP 2) HR 3) SpO2 4) Glycaemia 5) Temperature 5 x 10	Focused questions about: 1) Chestpain 2) Palpitation 3) Headache 3 x 20	ECG sinus	1) Tachycardia recognizing 2) Paroxysmal AF identification 3) IV access 3 x 20	Nausea and vomitus questions 2 x 20	330	ECG monitoring during transport is necessary to detect and document AF paroxysm - it is often the embolus from the left atrium that causes the stroke. AF paroxysm can be recorded in field if ECG monitor left on 3 minutes after connection. IV access - green or wider cannula is best to be ready for angiography.
		60	50	60	60	60	40		
3	Direction, diagnosis	Direction: 1) Stroke or cerebrovascular treatment center (SC)  2) After prior consultation 30 + 20	Contact SC: By recorded call through EMS dispatch center 50  Call directly from your phone 25	1) Expressive aphasia 2) Mild right faciobrachial hemiparesis 3) Right hemisensory loss 3 x 30	Highlight iodine allergy information when speaking with SC	Highlight AF paroxysm information when speaking with SC	Correct GCS: E4 V5 M6 = 15 or E4 V4 M6 = 14	310	Adequate and correct description of stroke symptoms (triage positive) when speaking to SC physician. It is necessary to consult neurologist to confirm triage positivity and to agree with admission and to tell him all important informations, especially possible IV contrast allergy (angiography is still possible but special caution is needed). The information about allergy would not be possible to check again in the hospital due to neurological worsening to global aphasia. GCS - to be aware what is checked (verbal response can be checked nonverbally and should be 4 or 5). GCS should be told to the neurologist on call or he will ask the EMS crew about it.
		50	50	90	40	40	40		
4	Preparation for transport	Patient must be ready for transport with: established ECG monitoring	Patient must be ready for transport with: adequate IV access					50	Stroke Triage Positive patient suffers from at least one primary symptom or at least two secondary symptoms of acute stroke within 24 hours (clinical view), including completely improved symptoms - transitory ischaemia ('time view'). ECG to be monitored during transport - see above).
		30	20						
5	Diagnostic and therapeutic reasoning	Stroke	Atrial fibrillation (AF) or narrow QRS complex tachycardia					100	Making the right diagnosis and treatment decisions. 5/2: For paramedic crews.
		50	50						
6	Team cooperation and communication	Clear and obvious teamleader	Crew communicates as a team and passes information to the leader	Leader receives and responds to information from the crew	Well managed and controlled patient handling	Team communication with patients and other actors		50	Crew cooperation as a team, obvious and visible teamleader. Unambiguous and clear communication with judges (no repeated questions about the same - usually vitals), patients and others. Introduce after arrival, informing the patient at every move, lift, touch, examination, procedure, transport and explaining why is this done.
		10	10	10	10	10			
7	Actors - players	Patient Roman Qakino	Friend Karel Albert					100	Subjective evaluation by actors - players (simulated patients, relatives, bystanders, witnesses etc.).
		70	30						

Maximum time limit to perform task: 12 minutes

**Assignment for competing team:**

EMS Dispatch Center has received a call on emergency line and is sending you to event:  
**Bus accident near the metro station, one EMS unit is already on the scene.**

**Your tasks (must be provided in maximum time limit to perform task):**

- Assess situation at scene and choose correct work procedure in accordance with the instructions of MCI commander.
- Inform the judge of any further steps.

**Scene conditions:**

Date: September 19, 2023 Time: 01:30pm Outside temperature °C/°F: 24/75 Weather: clear sky, no wind  
 Call to address time: 8 minutes  
 All requests and information to or from EMS Dispatch must be addressed to judge marked DISPATCH.

**On-Scene Situation:**

When the crew arrives at the scene, the MCI commander (judge) instructs the crew:  
 "Perform START triage and related activities in the unexplored portion of the site. The site is secure."  
 and begins timing.

**Practical execution:**

Patients (14 images of injured persons with description of injury and selected clinical parameters needed for triage) are spread around the room and the crew must find and triage them.

**T3 GREEN: At the request of the crew, they "leave" the scene = the judge hands their pictures to the competing crew.**

2 minutes before the time limit, the judge asks the crew to report the status of the triage (number of injured, classification, patients summary).  
 The task is to triage using the triage tags and at least the patients summary.

**Key words:**

START, triage tag, patients summary.

Team scoring		1	2	3	4	5	Max. points (w/o time)	Correct decisions and performance
							1 950	
1	Triage	Find all those affected 14 x 20	Use triage tags 14 x 10	Correct triage 14 x 90	Recording triage in an overall overview	Correct interpretation of triage results to MCI Commander	1 950	Correct triage, use of triage tags + keeping an overall sorting overview. 1/4: Some "paper" on which to keep a triage summary, ideally a patient summary. 1/5: At least the number of affected persons and their classification.
		280	140	1260	130	140		

Found	Triage tag	Correct triage	Found	Triage tag	Correct triage
<input type="checkbox"/> 1	A T2 YELLOW	<input type="checkbox"/>	<input type="checkbox"/> 8	O T2 YELLOW	<input type="checkbox"/>
<input type="checkbox"/> 2	C T1 RED	<input type="checkbox"/>	<input type="checkbox"/> 9	P T2 YELLOW	<input type="checkbox"/>
<input type="checkbox"/> 3	F T2 YELLOW	<input type="checkbox"/>	<input type="checkbox"/> 10	S T2 YELLOW	<input type="checkbox"/>
<input type="checkbox"/> 4	G T3 GREEN	<input type="checkbox"/>	<input type="checkbox"/> 11	T T2 YELLOW	<input type="checkbox"/>
<input type="checkbox"/> 5	I T3 GREEN	<input type="checkbox"/>	<input type="checkbox"/> 12	U T4 BLACK	<input type="checkbox"/>
<input type="checkbox"/> 6	K T1 RED	<input type="checkbox"/>	<input type="checkbox"/> 13	X T2 YELLOW	<input type="checkbox"/>
<input type="checkbox"/> 7	L T2 YELLOW	<input type="checkbox"/>	<input type="checkbox"/> 14	Z T1 RED	<input type="checkbox"/>