

Database of questions for the Medical-Dental Final Examination (LDEK)

Part 1

Emergency medicine

Modified 27.11.2024

Question nr 1

According to the guidelines of the European Resuscitation Council 2015, when the first aid is provided by a non-trained by-stander, they should:

- A.** start chest compressions immediately.
- B.** start chest compressions and mouth-to-mouth resuscitation immediately.
- C.** immediately call the emergency medical service and follow the commands of the emergency medical dispatcher.
- D.** fetch the AED as quickly as possible and follow its instructions.
- E.** find a medically trained person and leave the patient under their care.

Question nr 2

A partial obstruction of the upper respiratory tract may lead to:

- A.** brain edema.
- B.** pulmonary edema.
- C.** brain hypoxia.
- D.** sudden cardiac arrest.
- E.** all of the above.

Question nr 3

The post-resuscitation care in a stable patient who has been treated because of shock includes monitoring of diuresis. In an adult male it should amount to about:

- A.** 100 mL/h.

B. 70 mL/h.

C. 50 mL/h.

D. 30 mL/h.

E. 5 mL/h.

Question nr **4**

According to the rules of triage at a place of accident (pre-hospital triage), victims who do not need urgent care are marked in:

A. red.

B. yellow.

C. green.

D. black.

E. blue.

Question nr **5**

The main signs and symptoms of deep vein thrombophlebitis in lower limbs **do not** include:

A. edema and tissue tenderness on palpation.

B. limb pain.

C. increased temperature and cyanosis of the skin.

D. distension of the superficial veins.

E. impaired sensation in the limb.

Question nr **6**

Signs and symptoms of hypoglycemia **do not** include:

A. bradycardia.

B. increase in arterial blood pressure.

C. vision disturbances.

D. speech disturbances.

E. skin paleness.

Question nr 7

Which of the following signs or symptoms may suggest the presence of a foreign body in the nasal passages?

A. obstruction of the nasal passage.

B. sneezing.

C. mucous or purulent nasal secretion.

D. tearing.

E. all the above.

Question nr 8

A routine dental examination of the oral cavity revealed a small amount of blood on the back wall of the throat. Its presence may be a sign of:

A. bleeding polyp of the nasal septum.

B. benign neoplasm, e.g. juvenile angiofibroma.

C. malignant tumor of the nose and paranasal sinuses.

D. A and C are true.

E. A,B,C are true.

Question nr 9

Paradoxical respiration is characteristic of:

A. cardiac tamponade.

B. myocardial infarction.

C. flail chest.

D. secondary spontaneous pneumothorax.

E. rupture of the diaphragm.

Question nr **10**

Delirium in elderly patients may be triggered by:

- A.** immobilization.
- B.** environmental stress.
- C.** hypoxemia.
- D.** all the above.
- E.** none of the above.

Question nr **11**

Which of the following toxidromes is characterized by dilated pupils?

- A.** opiate withdrawal.
- B.** opiate.
- C.** cholinergic.
- D.** opiate and anticholinergic.
- E.** cholinergic and sympathomimetic.

Question nr **12**

In the case of an infant CPR the recommended ratio of compressions to artificial breaths is:

- A.** 03:01
- B.** 05:01
- C.** 05:02
- D.** 15:02
- E.** 30:02:00

Question nr **13**

What is the first-line treatment in the case of hypoglycemia with loss of consciousness?

- A.** intravenous administration of glucose solution.
- B.** intravenous administration of hydrocortisone.
- C.** intravenous administration of naloxone.
- D.** intravenous administration of Ringer's lactate solution.
- E.** intramuscular administration of dexamethasone.

Question nr **14**

A patient has been assigned 7 points on the Glasgow coma scale. Which of the following procedures should be considered in the first moments at the place of an accident?

- A.** obtaining venous access.
- B.** obtaining intraosseous access.
- C.** obtaining airway patency with a supraglottic airway device or an endotracheal tube.
- D.** securing the patient with a cervical collar.
- E.** intramuscular administration of epinephrine.

Question nr **15**

In a conscious patient with ECG as below one should recognize:



- A. sudden cardiac arrest.
- B. pulseless ventricular tachycardia.
- C. pulseless ventricular tachycardia only when the pulse is not palpable.
- D. ventricular tachycardia with palpable pulse.
- E. narrow complex tachycardia.

Question nr 16

Indicate the true statement concerning the triage, in the case of mass accidents, performed with the use of START and JUMP START procedures:

- A. triage procedure includes the assessment of the heart rate in the victims.
- B. yellow tag is assigned to children with the respiratory rate of 10 breaths/min.
- C. red tag is assigned to children with a palpable pulse but who do not breathe in spite of patent airways and 5 rescue breaths.
- D. red tag is assigned to adults who can't walk, with capillary refill time < 2 seconds, responding to commands.
- E. black tag is assigned to an adult who does not breathe.

Question nr **17**

In an adult in post-traumatic shock a blood loss of about 900 mL leads to:

- A.** tachycardia and decrease in systolic blood pressure.
- B.** oliguria and impaired consciousness.
- C.** orthostatic hypotension.
- D.** loss of consciousness and bradycardia.
- E.** oliguria and decreased blood pressure.

Question nr **18**

Sudden cardiac arrest occurred in an adult patient at the hospital. The nurse started resuscitation with chest compressions only. Which of the following is the best assessment of her action?

- A.** chest compressions only are enough to obtain effective resuscitation.
- B.** chest compressions only are not equivalent to the standard BLS algorithm.
- C.** chest compressions only increase the survival rate by 70%.
- D.** medical professionals have a duty to perform chest compressions and ventilation alternately.
- E.** B and D are true.

Question nr **19**

According to current recommendations, which of the following plays a secondary role in the survival of a patient with suddden cardiac arrest?

- A.** time between the cardiac arrest and the start of chest compressions.
- B.** method used to restore the airway patency.
- C.** time between the cardiac arrest and the defibrillation.
- D.** quality of chest compressions.
- E.** quality of ventilation.

Question nr **20**

Using the Glasgow Coma Scale indicate the best description of the state of consciousness of a patient who produces incomprehensible sounds, opens their eyes to commands and defends themselves against pain stimuli:

- A.** mildly impaired consciousness.
- B.** moderate disturbances of consciousness.
- C.** unconsciousness.
- D.** decorticate state.
- E.** decerebrate state.

Question nr 21

Tactical tourniquets may be used to stop bleeding:

- A.** only in the case of bleeding from gunshot injuries.
- B.** only after confirmation that the source of bleeding is an artery and not a vein.
- C.** only distally from the knee or the elbow.
- D.** always in every bleeding.
- E.** always if the hemorrhage cannot be managed by the direct pressure on the wound.

Question nr 22

To what depth should the chest of an adult patient be compressed during CPR?

- A.** 9 cm.
- B.** 8 cm.
- C.** 7 cm.
- D.** 6 cm.
- E.** 5 cm.

Question nr 23

Which of the following mechanisms is the most probable cause of sudden cardiac arrest in a patient struck by lightning?

- A.** ventricular fibrillation.

- B.** atrial fibrillation.
- C.** ventricular flutter.
- D.** mechanical damage to the heart muscle.
- E.** temporary asystole.

Question nr **24**

Indicate **the false** statement concerning syncope:

- A.** it is a temporary loss of consciousness with a sudden onset, short duration and spontaneous resolution.
- B.** reflex syncope is observed most commonly.
- C.** syncope may be related to the current pharmacological treatment.
- D.** syncope is not a life-threatening condition and it does not require further diagnostics.
- E.** in some patients syncope may occur repeatedly.

Question nr **25**

Gastric lavage, which is one of the basic methods for decontamination of the gastrointestinal tract in acute intoxications, should be performed:

- A.** in all oral intoxications.
- B.** in detergent intoxication irrespective of the time of ingestion.
- C.** within 6 hours from the intoxication.
- D.** within an hour from the ingestion of a toxin in a dose posing a risk of severe intoxication.
- E.** in hydrocarbon intoxication irrespective of the time of ingestion.

Question nr **26**

Mechanical defibrillation:

- A.** is highly effective in the restoration of the perfusing rhythm.
- B.** is performed in all types of ventricular tachycardia.

C. consists in performing the so-called precordial thump.

D. is preceded by the electrical cardioversion.

E. requires the administration of tranquillizers.

Question nr **27**

During dental treatment the patient feels sudden dyspnea. Indicate **the least** probable cause:

A. foreign body.

B. anaphylaxis.

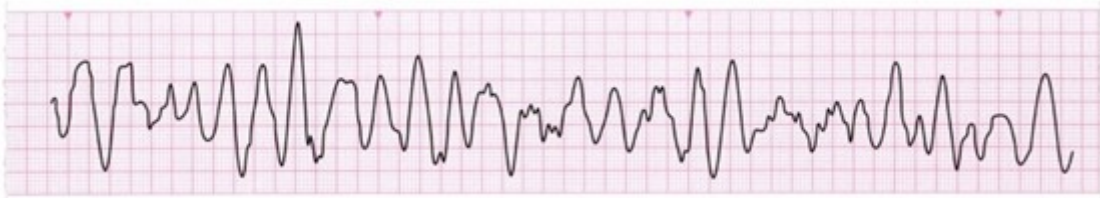
C. arrhythmia.

D. bronchial asthma.

E. sudden cardiac arrest.

Question nr **28**

Which mechanism of circulatory arrest will you diagnose in a patient with no breathing and no pulse when you notice the following record on the monitor?



A. ventricular fibrillation.

B. atrial fibrillation.

C. asystole.

D. pulseless electrical activity.

E. ventricular pulseless tachycardia.

Question nr **29**

The severe salicylate intoxication is characterised by:

A. respiratory alkalosis and metabolic acidosis.

B. respiratory acidosis and metabolic alkalosis.

C. respiratory and metabolic alkalosis.

D. respiratory and metabolic acidosis.

E. respiratory alkalosis only.

Question nr 30

The signs of a basilar skull fracture include:

- 1) periorbital ecchymosis;
- 2) leak of the cerebrospinal fluid from the ears;
- 3) cyanosis and bruises in the area of the mastoid processes;
- 4) increased heart rate;
- 5) Battle's sign.

The correct answer is:

A. 1,2,3,4.

B. 2,3,5.

C. 1,2,3,5.

D. 1,2,4,5.

E. 1,2,4.

Question nr 31

Which of the following is an indication for electrical defibrillation?

A. atrial fibrillation.

B. ventricular fibrillation.

C. pulseless ventricular tachycardia.

D. A and B are true.

E. B and C are true.

Question nr 32

Which of the following **is not** considered in the assessment of shock in an acute trauma patient according to ATLS scale?

A. mean arterial pressure.

- B. capillary refill time.
- C. respiratory rate.
- D. heart rate.
- E. consciousness.

Question nr **33**

Indicate the true statement concerning bradycardia in an adult:

- A. bradycardia may be a result of salbutamol overdosage.
- B. bradycardia is recognized when the heartrate drops below 50-60/min.
- C. bradycardia is treated with atropine in a total dose of up to 15 mg.
- D. bradycardia related to acute myocardial infarction should be preferably treated with nitrates.
- E. amiodaron is always the first-choice treatment for bradycardia.

Question nr **34**

Which of the following rhythms **is not** amenable to defibrillation?

- A. asystole.
- B. ventricular fibrillation.
- C. pulseless electrical activity.
- D. torsade de pointes.
- E. A and C are true.

Question nr **35**

Indicate **the false** statement concerning status epilepticus:

- A. it should be terminated as quick as possible because it may lead to permanent brain damage.
- B. diazepam is the first-line treatment.
- C. it can't be diagnosed unless convulsions are observed.

D. it may be caused by a withdrawal of opiates or benzodiazepines.

E. head trauma, brain tumour or encephalitis may provoke status epilepticus in a patient who has never had epileptic seizures.

Question nr **36**

Heimlich maneuver is used to:

A. remove a foreign body from the upper respiratory tract in the case of choking.

B. obtain non-instrumentally the patency of the upper respiratory tract.

C. facilitate intratracheal intubation.

D. protect airways from aspiration.

E. none of the above.

Question nr **37**

An 35-year-old woman burned herself with boiling water. The affected areas include the anterior surface of the trunk, the anterior surface of both upper limbs and the whole surface of the right lower limb. The total burned surface area can be estimated as:

A. 15% of the body's surface area.

B. 25% of the body's surface area.

C. 30% of the body's surface area.

D. 36% of the body's surface area.

E. 45% of the body's surface area.

Question nr **38**

In order to secure the cervical part of the vertebral column in each victim of a traffic accident the following methods can be used, **except for**:

A. restoring the airway patency with Esmarch maneuver.

B. Schantz collar.

C. orthopedic backboard.

D. Heimlich maneuver.

E. side head supports.

Question nr **39**

Indicate **the false** statement concerning traumatic cardiac arrest:

A. mortality is high.

B. CPR begins with the treatment of external hemorrhages.

C. tension pneumothorax may be a cause.

D. cerebral trauma may be a cause.

E. myocardial infarction may be a cause.

Question nr **40**

The treatment of choice in anaphylactic shock is the administration of:

A. hydrocortisone.

B. antihistamines.

C. adrenaline.

D. salbutamol.

E. infusion fluid.

Question nr **41**

Obesity in adults is diagnosed when the body mass index ($\text{BMI} = \text{body weight [kg]} / \text{height [m}^2\text{]})$ exceeds:

A. 20.

B. 24.

C. 28.

D. 30.

E. 40.

Question nr **42**

Basic Life Support procedures recommended by the European Resuscitation Council

(ERC) in a person with cardiac arrest include chest compressions and rescue breaths. In which sequence these procedures should be repeated in non-intubated adult patient according to ERC guidelines?

- A.** 5 compressions / 1 breath.
- B.** 5 compressions / 2 breaths.
- C.** 15 compressions / 1 breath.
- D.** 15 compressions / 2 breaths.
- E.** 30 compressions / 2 breaths.

Question nr 43

Indicate the true statement concerning hypothermia:

- A.** it is diagnosed when the body core temperature drops below 35 °C.
- B.** it is a kind of frost-bite affecting distal body parts.
- C.** it does not occur when the ambient temperature is above 5 °C.
- D.** hypothermia is an absolute indication for hyperbaric oxygen therapy.
- E.** optimal and safe speed of heating the organism is 1 °C every 12 hours.

Question nr 44

Which of the following symptoms indicates a second degree burn?

- A.** pain only and skin redness.
- B.** hard and tight skin.
- C.** blistering with serous fluid.
- D.** charring of tissue.
- E.** none of the above.

Question nr 45

Medications used during CPR are administered:

- 1) intravenously;
- 2) intraosseously;
- 3) intramuscularly;

4) subcutaneously;

5) intratracheally.

The correct answer is:

A. 1,3,5.

B. 1,2,5.

C. 2,3,5.

D. 1,2,3.

E. 1,2,4.

Question nr 46

An accident victim suffered from multiple injuries. Which of the following suggests a life-threatening condition?

A. fracture of the upper limb.

B. pain in the lumbar region.

C. pale, cool and sweaty skin.

D. thumb amputation.

E. hematoma in the area of the mandible.

Question nr 47

Indicate **the false** statement concerning carbon monoxide intoxication:

A. carbon monoxide is a colorless and odorless gas.

B. cherry red coloration of the skin may be one of the symptoms of carbon monoxide intoxication.

C. carbon monoxide intoxication leads to respiratory alkalosis.

D. severe carbon monoxide intoxication is an indication for hyperbaric oxygen therapy.

E. pulmonary ventilation is one of the factors influencing the severity of intoxication.

Question nr 48

The potentially reversible causes of sudden cardiac arrest denoted as '4H' **do not** include:

- A. hypoxia.
- B. hypovolemia.
- C. hypocalcemia.
- D. hypothermia.
- E. hyperkalemia.

Question nr 49

In a patient with cardiac arrest with ECG recorded with defibrillator electrodes as below you should apply:



- A. defibrillation.
- B. precordial thump.
- C. epinephrine administration.
- D. lidocaine.
- E. cardiac pacing.

Question nr 50

Indicate consecutive steps of basic life support in an unconscious patient:

- A. safety assessment, call for medical help, evaluation of consciousness and assessment of breathing.
- B. evaluation of consciousness, call for medical help, assessment of breathing and 2 artificial breaths.
- C. safety assessment, evaluation of consciousness, assessment of breath, call for help.
- D. safety assessment, evaluation of consciousness, call for help, assessment of breath,

call the ambulance.

E. evaluation of consciousness, assessment of breath, safety assessment, call for help.

Question nr **51**

In the case of tension pneumothorax the urgent needle decompression should be performed at:

A. sixth intercostal space.

B. fifth intercostal space.

C. fourth intercostal space.

D. third intercostal space.

E. second intercostal space.

Question nr **52**

Which of the following **is not** given during resuscitation?

A. amiodarone.

B. dopamine.

C. lidocaine.

D. magnesium.

E. sodium bicarbonate.

Question nr **53**

Atropine given in doses of 1-2 mg every 5-15 minutes is a treatment used for the poisoning with:

A. cyanides.

B. opium derivatives.

C. methanol.

D. organophosphate pesticides.

E. carbon monoxide.

Question nr **54**

The resuscitation of a person in cardiac arrest caused by drowning should be started with:

- A.** removal of water from the lungs to improve oxygenation.
- B.** 5 rescue breaths.
- C.** victim warming.
- D.** chest compressions.
- E.** securing airway patency.

Question nr **55**

A 75-year-old patient lost his consciousness in the dental office and does not breathe. Indicate the correct sequence of actions:

- A.** start CPR, call for help.
- B.** call for help, start CPR.
- C.** examination of the pulse on the carotid artery, start CPR.
- D.** call for help, checking the pulse on the carotid artery.
- E.** observation of the patient until a spontaneous recovery of consciousness.

Question nr **56**

During tooth extraction the patient suddenly grabbed his chest and lost consciousness. What will you do first after removing the tools and cotton swabs from his mouth?

- A.** 30 chest compression.
- B.** 5 rescue breaths.
- C.** anti-shock positioning.
- D.** assessment of the vital signs.
- E.** call the Emergency Medical Service.

Question nr **57**

Indicate the most common origin of cardiac arrest in children:

- A.** cardiac.
- B.** respiratory.
- C.** traumatic.
- D.** anaphylactic.
- E.** none of the above.

Question nr 58

An intoxication with tramadol should be treated with:

- A.** glucagon.
- B.** flumazenil.
- C.** naloxone.
- D.** mannitol.
- E.** glucose.

Question nr 59

Indicate the classical place for the decompression (puncture) of tension pneumothorax:

- A.** fifth intercostal space in the parasternal line.
- B.** second intercostal space in the mid-clavicular line at the upper rim of the third rib.
- C.** third intercostal space in the midaxillary line.
- D.** seventh intercostal space in the anterior axillary line.
- E.** second intercostal space in the mid-clavicular line at the lower rim of the second rib.

Question nr 60

Which of the following sentences are true?

- 1) after the shock, AED electrodes should be immediately removed from patient's chest;
- 2) common worldwide the AED sign is green;
- 3) while putting AED electrodes in place CPR should be stopped;
- 4) AEDs available on market today analyze the heart rhythm every 2 minutes;
- 5) as soon as AED is put in place follow spoken instructions;
- 6) AED allows the rescuer to change the level of energy delivered in one shock.

The correct answer is:

- A.** 2,3,6.
- B.** 2,4,5.
- C.** 1,3,5.
- D.** 1,4,6.
- E.** 2,3,5.

Question nr 61

Anaphylaxis is a rapid reaction to the exposure to an allergen, e.g. a medication. The drug of choice in the treatment of a severe anaphylactic reaction is:

- A.** hydrocortisone.
- B.** cetirizine.
- C.** epinephrine.
- D.** naloxone.
- E.** aspirin.

Question nr 62

Indicate the true statement concerning the Esmarch maneuver:

- A.** the mandible is displaced forward and the maneuver is used for a non-instrumental airway opening in trauma patients.
- B.** the mandible is displaced forward and the maneuver is used for an instrumental airway opening in trauma patient.
- C.** is based on tilting the head backward and a displacement of the mandible forward.
- D.** is used in the first-aid after aspiration.
- E.** A and D are true.

Question nr 63

What are the recommended energy values for the first 3 CPR defibrillations in ventricular fibrillation in adults according to the guidelines of the European Resuscitation Council (2015)?

- A. 20 - 20 - 30 J.
- B. 50 - 50 - 100 J.
- C. 50 - 100 - 200 J.
- D. 100 - 100 - 100 J.
- E. 200 - 200 - 360 J.

Question nr **64**

Which of the following **is not** an indication for immediate intubation and mechanical ventilation?

- A. sudden cardiac arrest.
- B. severe craniocerebral injury (GCS < 9).
- C. unstable chest after trauma.
- D. exacerbation of COPD with $\text{SatO}_2 = 90\%$.
- E. intoxication with neuromuscular-blocking agents that paralyze breathing.

Question nr **65**

A patient was admitted to the emergency department with the following signs and symptoms: increased thirst, polyuria, mouth dryness, dry skin, low blood pressure, smell of acetone from the mouth, Kussmaul breathing, abdominal pain, vomiting. The initial diagnosis should be:

- A. hypoglycemia.
- B. acute kidney injury.
- C. hypokalemia.
- D. hyperglycemia.
- E. acute pancreatitis.

Question nr **66**

The symptoms like a strong chest pain not alleviated by opioids that radiates in various directions, asymmetrical pulse and differences in the blood pressure between limbs may indicate:

A. ST-elevation myocardial infarction - STEMI.

B. aortic dissection.

C. pulmonary embolism.

D. pericarditis.

E. acute cholecystitis.

Question nr **67**

Which of the following **is not** included in the management of the cardiac arrest, which occurred in the dental office in a patient in the third trimester of her pregnancy?

A. use of AED (automated external defibrillator).

B. chest compressions.

C. manual transposition of the uterus to the left side.

D. placing the patient flat on her back with the limbs elevated.

E. urgent call for emergency ambulance.

Question nr **68**

The first step in the management of a patient with mild airway obstruction caused by a foreign body should include:

A. back blows between the patient's blades.

B. encouraging the patient to cough.

C. epigastric compressions.

D. chest compressions.

E. bending the patient head downwards.

Question nr **69**

In a patient undergoing dental procedures stridor, feeling of an obstruction in the airways, anxiety, skin rash, eyelid oedema, and tachycardia occurred several minutes after the application of a local anesthetic. Indicate the proper management in this case:

- 1) calm down the patient and continue the dental procedures;
- 2) call for help and immediately give 0.5 mg of epinephrine i.m.;

- 3) give salbutamol in nebulization and start oxygen therapy;
- 4) place a peripheral venous catheter and then give 1 mg of epinephrine in bolus;
- 5) inject one ampule of antazoline i.m.

The correct answer is:

- A.** 1,5.
- B.** 2,3.
- C.** 3,5.
- D.** only 5.
- E.** only 4.

Question nr 70

External cardiac massage in an adult with a sudden cardiac arrest should be started by a non-professional witness after identifying:

- A.** no pulse on the carotid artery.
- B.** no pulse on the femoral artery.
- C.** no breathing.
- D.** dilated pupils in the unconscious patient.
- E.** decrease in the arterial pressure below 70 mmHg in a patient with acute myocardial infarction.

Question nr 71

A loss of consciousness is dangerous because:

- A.** it makes ABCDE assessment difficult.
- B.** it weakens or stops defense reflexes.
- C.** it inevitably leads to cardiac arrest.
- D.** it may 'blur' the communication with the patient.
- E.** none of the above.

Question nr 72

Automated external defibrillator (AED) should be used in cardiopulmonary resuscitation:

- A.** after at least 5 minutes of resuscitation.
- B.** instead of chest compressions.
- C.** as quickly as possible.
- D.** in all patients except for those with an implanted cardioverter defibrillator.
- E.** in adult patients only.

Question nr **73**

Indicate the single dose of adrenaline for sudden cardiac arrest from ventricular fibrillation in an adult patient:

- A.** 0.01 mg.
- B.** 0.1 mg.
- C.** 1 mg.
- D.** 2 mg.
- E.** 3 mg.

Question nr **74**

Indicate true sentences regarding burns:

- 1) shock which may follow extensive burns is a type of hypovolemic shock;
- 2) according to the rule of '9' a burn to scrotum is 10% of TBSA;
- 3) blisters are characteristic of II° burns;
- 4) sunburns are the most frequent III° burns;
- 5) lack of pain is characteristic of III° burns.

The correct answer is:

- A.** 1,2.
- B.** 2,4.
- C.** 1,3.
- D.** 2,5.
- E.** 2,3.

Question nr **75**

At the hospital emergency department in the patient after a traumatic traffic injury the CT examination revealed a fracture gap extending horizontally at the level of the nasal cavity as a result of which a piece of the maxilla with the alveolar processes, the teeth and the palate is separated from the rest of the facial skeleton. The above description applies to:

- A. Le Fort type IV fracture.
- B. Le Fort type III fracture.
- C. Le Fort type II fracture.
- D. Le Fort type I fracture.
- E. based on the above description, the fracture type can not be specified.

Question nr **76**

The antidote to acetaminophen (paracetamol) poisoning is:

- A. flumazenil.
- B. physostigmine.
- C. N-acetylcysteine.
- D. deferoxamine.
- E. pralidoxime.

Question nr **77**

The incision of the cricothyroid membrane is called:

- A. thyrotomy.
- B. coniotomy.
- C. tracheocentesis.
- D. tracheotomy.
- E. thoracentesis.

Question nr **78**

Shockable rhythms **do not** include:

- 1) VF;

- 2) pulseless VT;
- 3) fine VF;
- 4) asystole;
- 5) PEA.

The correct answer is:

- A.** 2,3.
- B.** 1,2,3.
- C.** 4,5.
- D.** 3,4,5.
- E.** all the above.

Question nr 79

Which of the following is the first-line treatment in the case of severe anaphylaxis with the signs of shock which occurred as a consequence of a wasp sting?

- A.** 0.9% NaCl solution in a quick infusion in a dose of 20 mL/kg.
- B.** hydrocortisone in a dose of 200 mg i.v.
- C.** dexamethasone in a dose of 8 mg i.m. or i.v.
- D.** epinephrine in a dose of 0.5 mg i.m. or i.v.
- E.** clemastine in a dose of 2 mg i.v.

Question nr 80

After the second defibrillation with the Automatic External Defibrillator the rescuer should:

- A.** access breathing.
- B.** start ventilation.
- C.** access the signs of circulation.
- D.** start chest compressions.
- E.** administer iv 1 mg of adrenaline.

Question nr 81

Defibrillation is used in the case of:

- A.** ventricular fibrillation.
- B.** sinus tachycardia.
- C.** PEA - pulseless electrical activity.
- D.** asystole.
- E.** none of the above.

Question nr **82**

Which of the following is the most common type of bleeding observed in patients with hemophilia A reporting to the emergency department?

- A.** intra-articular.
- B.** urinary tract.
- C.** intramuscular.
- D.** cerebral.
- E.** gastrointestinal.

Question nr **83**

Atropine is a specific antidote in the case of intoxication with:

- A.** methyl alcohol.
- B.** paracetamol.
- C.** organophosphate pesticides.
- D.** benzodiazepines.
- E.** *Amanita phalloides* (death cap mushroom).

Question nr **84**

In the case of anaphylactic shock at the dentist's office, the first action should be adrenaline administration at the dose of:

- A.** 0.5 mg intramuscularly.

- B.** 1 mg intramuscularly.
- C.** 2 mg intramuscularly.
- D.** 1 mg intravenously.
- E.** 2 mg intravenously.

Question nr 85

Which of the following consciousness assessment scale/score is among the most commonly used in victims of accidents:

- A.** TISS.
- B.** AVPU.
- C.** SOFA.
- D.** AIS.
- E.** LSO.

Question nr 86

After diagnosing cardiac arrest in the mechanism of ventricular fibrillation confirmed on the defibrillator monitor, the proper sequence of events is:

- A.** 2 rescue breaths - chest compressions - shock.
- B.** shock - chest compressions/ventilation (2 min.) - rhythm analysis.
- C.** precordial thump - rhythm analysis - shock.
- D.** adrenaline - rhythm analysis - chest compressions.
- E.** shock - rhythm analysis - chest compressions/ventilation 15:2.

Question nr 87

The following conditions:

- 1) long-term immobilization;
 - 2) malignant tumors and antineoplastic treatment;
 - 3) large surgical operations (involving lower limbs, the pelvis or the abdomen);
 - 4) obesity;
- are the risk factors for:

- A.** heart attack.
- B.** COPD.
- C.** pulmonary embolism.
- D.** asthma.
- E.** acute atelectasis.

Question nr **88**

The lowest possible score on the Glasgow scale is:

- A.** 0.
- B.** 1.
- C.** 2.
- D.** 3.
- E.** 4.

Question nr **89**

Indicate symptom/statement which refers to the pain characteristic of myocardial infarction?

- A.** it is localized.
- B.** it does not disappear after administration of nitroglycerin.
- C.** it intensifies with deep breathing.
- D.** it occurs regularly during minor exertion.
- E.** it disappears in the supine position.

Question nr **90**

Emergencies, which pose as a potential life-threatening condition of a dental patient, occur most often:

- A.** just before the beginning of treatment.
- B.** during or after local anesthesia.

- C. during treatment.
- D. after treatment.
- E. after leaving the dental office.

Question nr **91**

Human brain accounts for 2% of body weight, uses 20 % of oxygen and 65 % of glucose. Its oxygen supply would be sufficient for:

- A. 10 sec.
- B. 1 minute.
- C. 4-6 minutes.
- D. 5-10 minutes.
- E. 10-20 minutes.

Question nr **92**

Indicate correct combination of sounds made by patient in dental office - the most probable cause of partial airway obstruction:

- A. snoring - obstruction of pharynx by tongue.
- B. gurgling - foreign body in airways (blood, water, vomit).
- C. wheezing - asthma.
- D. stridor - partial larynx obstruction.
- E. all of the above mentioned answers are correct.

Question nr **93**

Apart from adrenaline, the primary medications in reanimation are the ones mentioned below. Choose **false** pair (indication for medication - medication with a dose):

- A. symptomatic bradycardia - atropine 2 amp. 10 ml (1,0 mg/10ml).
- B. arrhythmia - lidocaine (xylocaine) 1 amp. 5 ml (100 mg).
- C. Paroxysmal Supraventricular Tachycardia (PSVT) - verapamil (isoptin) 1-2 amp. 4 ml (2,5 mg/ml).

D. cardiac arrest - lidocaine (xylocaine) 1 amp. 5 ml (100 mg).

E. symptomatic hypotension - dopamine (intropin) or dobutamine 1-2 amp. 5 ml (80 mg/ml).

Question nr **94**

Applying only Basic Life Support does not increase the chances of survival in patients, in which the cardiac arrest happened outside the hospital (e.g. in dental office), if one **does not** implement:

A. maintenance of airway and ventilation (along with intubation).

B. monitoring the patient and diagnosing the arrhythmia.

C. defibrillation and synchronic cardioversion.

D. pharmacological treatment.

E. all of the above mentioned.

Question nr **95**

Choose parameters that are contraindications for starting the dental treatment:

A. heart rate 60 - 110/min.

B. temperature of oral cavity - 36,1 - 37,5 Celsius.

C. blood pressure > 200/115 mmHg.

D. number of breaths 12-16/min.

E. body weight above 130 kg.

Question nr **96**

Choose correctly sorted pattern of procedures in case of emergency in the dental office:

1) assessment and maintaining the patent airways;

2) assessment and control of the breathing and performing artificial respiration;

3) circulation - assessment and performing the chest compression on sternum;

4) position - ensuring the secure position;

5) definitive treatment.

Correct answer is:

A. 1,2,3,4,5.

B. 4,1,2,3,5.

C. 4,1,3,2,5.

D. 1,2,4,3,5.

E. 4,3,1,2,5.

Question nr 97

The best way of protecting the airways, for the doctor as well as the patient, from infection with SARS CoV-2 in the dental office is using the mask:

A. surgical.

B. made from fabric.

C. FFP2 without the valve.

D. FFP2, FFP3 with the valve.

E. FFP1 without the valve.

Question nr 98

Acute adrenal insufficiency is the third most common reason for potential life-threatening condition in dental office. Adrenal suppression may be suspected in case of:

A. patient receiving at least 20 mg of cortisone daily.

B. the course of intraoral or parenteral corticosteroid therapy for at least 2 weeks.

C. therapy with steroids in last 2 years.

D. answers A and B are correct.

E. answers A, B and C are correct.

Question nr 99

In case of cardiac arrest and applying AED electrodes, it is expected for the AED to indicate pressing the button in order to execute the shock in a following situation:

A. during each cardiac arrest.

B. only if patient experiences ventricular fibrillation or ventricular tachycardia.

C. in case of an atrioventricular block.

D. in case of an asystole.

E. in case of a PEA – pulseless electrical activity.

Question nr **100**

AED electrodes have been applied to a patient with cardiac arrest. The AED has given a voice prompt: do not touch the patient – evaluating heart rhythm. How should first aiders behave?

A. all should stand aside and not touch the patient.

B. chest compression should be continued, all other people should stand aside.

C. only mouth-to-mouth resuscitation is allowed.

D. the distance from the patient should be at least 10 m.

E. all should stand aside from the patient for at least 2 min.

Question nr **101**

The patient subjected to dental treatment experienced urticaria, swelling of the lips and dyspnoea. Which treatment should be implemented first?

A. calling the emergency medical team and waiting for their arrival.

B. intramuscular administration of 0.5 mg of adrenaline.

C. intravenous administration of 200 mg of hydrocortisone.

D. intravenous administration of calcium chloride.

E. waiting 10 min for the reaction to subside spontaneously and taking other steps after that time.

Question nr **102**

The symptoms of orbital fracture **do not** include:

A. diplopia.

B. exophthalmos.

C. restriction of superior eye movement.

D. restriction of inferior eye movement.

E. enophthalmos.

Question nr **103**

Le Fort classification is used for describing the facial fractures. Choose correct sentences describing the type III fracture:

- 1) it is the most serious fracture in this classification;
- 2) it concerns total separation of facial skull, otherwise known as craniofacial dissociation;
- 3) it concerns fracture of zygomatic bone, orbital margin, and maxilla;
- 4) it describes a fracture in the shape of a pyramid, with its peak just above the nasal bridge, spreading inferolaterally through the suborbital margin;
- 5) it is a transverse fracture, just above the dental row, on the level of nasal cavity.

The correct answer is:

A. 1,3,5.

B. 1,2,4.

C. 3,4,5.

D. 1,2,3.

E. 2,4,5.

Question nr **104**

The risk factors of toxic shock syndrome (TSS) are:

- 1) foreign bodies containing air (such as tampons, nasal tamponade)
- 2) history of old surgery;
- 3) persistent primary teeth;
- 4) burns and local infections;
- 5) postpartum period.

The correct answer is:

A. 1,2,3.

B. 1,4,5.

C. 1,3,5.

D. 2,3,4.

E. 3,4,5.

Question nr **105**

Choose correct statement regarding a common viper bite:

- A.** early symptoms develop up to 6 hours after the incident.
- B.** bradycardia is considered an early symptom.
- C.** coagulopathy occurs in case of low venom serum concentration.
- D.** renal failure is a frequent symptom.
- E.** severity of symptoms is not subject to the amount of injected venom.

Question nr **106**

Sympathomimetic toxidrome is characterized by:

- A.** aggression.
- B.** hypothermia.
- C.** bradycardia.
- D.** small pupils.
- E.** hypotonia.

Question nr **107**

23-y.o. male has fallen from the roof, lost consciousness and sustained a head injury. Opens eyes following the pain stimulus, makes incomprehensible sounds and extension flexing of the extremities. How many points does such patient score in Glasgow Coma Scale?

- A.** 3.
- B.** 4.
- C.** 5.
- D.** 6.
- E.** 7.

Question nr **108**

Choose the symptom which **is not** associated with Cushing's triad:

- A. tachycardia.
- B. irregular breathing.
- C. bradycardia.
- D. blood pressure increase.
- E. intracranial pressure increase.

Question nr **109**

After penis amputation, reimplantation must be performed up to:

- A. 2 hours post trauma.
- B. 6 hours post trauma.
- C. 8 hours post trauma.
- D. 12 hours post trauma.
- E. 24 hours post trauma.

Question nr **110**

Choose early symptom of posttraumatic tension pneumothorax:

- A. bradycardia.
- B. bradypnea.
- C. percussion suppression (on the pneumothorax side).
- D. tachycardia.
- E. rales amplification (on the pneumothorax side).

Question nr **111**

Reversible cause of cardiac arrest **is not**:

- A. hypothermia.
- B. hypoxia.
- C. poisoning.

D. pneumothorax.

E. ascites.

Question nr **112**

Which of the below mentioned actions **is not** a feature of ketamine?

A. tachycardia and blood pressure increase.

B. bradycardia and hypotonia.

C. bronchodilation.

D. cerebral blood flow increase.

E. intraocular blood pressure increase.

Question nr **113**

Which values concerning high probability of deep vein thrombosis are true?

A. 0 points according to Well's Score and D-dimer concentration of 250 µg/l.

B. 0 points according to Well's Score and D-dimer concentration of 400 µg/l.

C. 1 point according to Well's Score and D-dimer concentration of 500 µg/l.

D. 2 points according to Well's Score and D-dimer concentration of 450 µg/l.

E. 3 points according to Well's Score and D-dimer concentration of 600 µg/l.

Question nr **114**

Optimum heating in posttraumatic hypothermia is:

A. 0,1 to 0,2°C per hour.

B. 0,3 to 0,4°C per hour.

C. 1 to 2°C per hour.

D. 3 to 4°C per hour.

E. 5 to 6°C per hour.

Question nr **115**

Select the correct emergency management of hyperkalaemia in patients with serum $[K^+]$ levels ≥ 6.5 mmol/L:

- A. 12-lead ECG.
- B. intravenous (IV) administration of a 10% calcium chloride 10 mL.
- C. intravenous (IV) administration of a 20% glucose 125 mL with 10 units of insulin within 15-30 minutes.
- D. administration of nebulised salbutamol 10-20 mg.
- E. all the answers are correct.

Question nr **116**

Reversible causes of cardiac arrest (so-called 4H's and 4T's) **do not** include:

- A. glycol poisoning.
- B. serum $[K^+]$ level ≥ 8.5 mmol/L.
- C. unilateral open pneumothorax.
- D. body core temperature of 33°C .
- E. pulmonary embolism.

Question nr **117**

A 53-year-old woman with a core body temperature of 31°C had a cardiopulmonary arrest. The correct management involves cardiopulmonary resuscitation with the administration of:

- A. amiodarone 300 mg IV.
- B. adrenaline 1 mg every 3-5 minutes IV.
- C. adrenaline 1 mg every 6-10 minutes IV.
- D. atropine 0.5 mg IV up to a total dose of 3 mg IV.
- E. atropine 3 mg IV in a bolus.

Question nr **118**

Which of the following **is not** recommended in a 73-year-old woman with a heatstroke?

- A.** in the case of exertional heatstroke it is recommended to cool the patient at a rate of 0.5°C/min.
- B.** in the case of exertional heatstroke it is recommended to cool the patient at a rate of 0.1°C/min.
- C.** intravenous administration of an isotonic or hypertonic fluid (if the serum sodium level is ≤ 130 mmol/L, a 3% NaCl solution in a dose of 100 mL should be used up to three times).
- D.** immerse the entire body of the patient (from the neck down) in water that is 1-26°C until the core body temperature decreases below 39°C.
- E.** place the patient in a supine position in a cool area.

Question nr **119**

Select the **false** statement regarding a 70-year-old man with hemodynamic instability and tension pneumothorax:

- A.** diagnosis must be based on clinical examination and ultrasonography or point-of-care ultrasonography (POCUS).
- B.** pneumothorax that was initially decompressed with a needle during CRP should be later drained.
- C.** chest decompression should be performed first, before all the other procedures.
- D.** pneumothorax should be decompressed using open thoracostomy.
- E.** it is always necessary to also drain the contralateral chest side.