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| ОҢТҮСТІК ҚАЗАҚСТАН<br><b>MEDISINA</b><br><b>AKADEMIASY</b><br>«Оңтүстік Қазақстан медицина академиясы» АҚ |  | SOUTH KAZAKHSTAN<br><b>MEDICAL</b><br><b>ACADEMY</b><br>АО «Южно-Казakhstanская медицинская академия» |
| Department: «Propedeutics internal diseases»  |  | 044 – 47/11 ( )   |
| Methodical instruction  |  | 1 p. from 6   |

**Methodological recommendation for teaching clinical skills at  
the Practical Skills Center (Glucose)**

**(using the execution algorithm)**


Specialty: 6B10101 – "General medicine"

Discipline: "Propaedeutics of internal diseases"

Course: 3

Department: "Propaedeutics of internal diseases"


Compiled by: Bekmurzayeva E.K., Bathieva M.B.

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| Methodical instruction  |  | 2 p. from 6  |

Considered at the meeting of the department

Protocol № 4A, " 13 " 12. 2022у.

Head of the Department, MD, Professor Бекмурзаева - Bekmurzayeva E.K.


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- 1. Clinical skill name:** Carrying out glucometry
- 2. The purpose of the training:** the formation of skills in carrying out glucometry.
- 3. Time to demonstrate skills in pre-briefing and dummy:** 5 min.
- 4. Time to master the skill:** 15 min
- 5. Necessary theoretical knowledge to master the skill:**
  1. Normative indicators of glucose in the blood
  2. The purpose of glucose measurement
  3. Technique of glucose measurement
  4. Nomogram
  5. Hypoglycemic syndrome
  6. Hypoglycemic coma
  7. Hyperglycemic syndrome
  8. Hyperglycemic coma
  9. Type 2 diabetes mellitus
  10. Type 1 diabetes mellitus
- 6. Simulator, simulator, mannequin, model list:** hand trainer, mannequin, glicosometer.
- 7. List of medical instruments and equipment:** alcohol, cotton wool, sterile glove.

**8. Algorithm for performing the skill:**

| №  | step by step   | Accomplishments |     |       |
|----|--|-----------------|-----|-------|
|    |  | Yes             | Not | Notes |
| 1. | I put on sterile gloves. I coded my device while it was turned off. The new three-digit code on the bottom of the test strip package must match the chip number on the package. Placed a code plate next to the device and the device will turn on automatically. A three-digit code appears on the display, which has been compared with the number on the test strip package.        |                 |     |       |
| 2. | After the three-digit code, the blood drop sign appears on the display. After the finger was treated with an alcohol solution, a drop of blood was injected into the test strip using a lancet for 90 seconds. The test strip collects the required amount of blood, the finger is treated with an alcohol solution. When you hear a short beep, the instrument has started measuring. |                 |     |       |
| 3. | After 5 seconds, the device will beep, which means the end of the measurement. The result is displayed on the display, and the result, date and time are automatically recorded in the device's memory.  |                 |     |       |
| 4. | Removing a test strip.   |                 |     |       |
| 5. | To turn off the device, press "Off" button, the device will turn off.  |                 |     |       |

- 9.Tasks.** Show the technique of glucometry, make an interpretation of the results.

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### 10. Materials for assessment on the topic of the lesson:

1. A patient with diabetes was given 1.16 units of regular (short-acting) insulin. He did not eat breakfast due to lack of appetite. X. At the age of 11, he lost consciousness from the development of this condition:

- A. ketoacidotic coma
- B. hyperosmolar coma
- C. hyperlactacidotic coma
- D. hypoglycemic coma
- E. acetonemic vomiting

2. The patient was admitted to the hospital with the following complaints. With dry mouth, thirst, frequent emptying of the small intestine. You suspected diabetes. First, it is necessary to determine the level of which indicator in the blood:

- A. cholesterol
- B. glycohemoglobin
- C. bilirubin
- D. triglycerides
- E. glycemia

3. The purpose of diet therapy for diabetes:

- A. restore blood pH
- B. shutting down the energy outlet
- C. Reduced insulin resistance
- D. hypersensitivity to insulin
- E. normoglycemia success

4. The presence of a sudden coma in a patient with type 4.1 diabetes mellitus, along with a short periodic excitation, indicates the presence of a coma:

- A. ketoacidotic
- B. lactic acid
- C. hyperosmolar
- d. livery
- E. hypoglycemic

5. Triggering factor of hypoglycemic coma is everything except:


- A. malnutrition
- B. insulin overdose
- C. drinking alcohol
- D. hypodynamia
- E. physical activity

6. Type 2 diabetes symptoms are all except:

- A. thirst
- B. dry mouth
- C. rapid weight loss
- D. blurred vision
- E. get fat

7. Detect the appearance of high blood sugar:

- A. trembling, nervousness
- B. dizziness, headache
- C. sweating

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D. thirst, dry mouth

E. feeling of hunger

8. You can see that the patient has diabetes in one of the following cases:

A. fasting glucose 5.5 mmol/l but less than 6.1 mmol/l

B. fasting glucose greater than or equal to 6.1 mmol/l

C. more than 7.8-11.1 mmol / l two hours after eating

D. isolated glucosuria up to 1% per day

E. fasting glucose 3.3 to 5.5 mmol/l

9. Patients with diabetes should eat with the addition of:

A. to prevent complications

B. to prevent ketosis

C. to increase body weight

D. to prevent hypoglycemia

E. improve your life status

10. is the main source of energy for the body:

A. fats

B. bread and baked goods

C. fruits and berries

D. flour, semolina

E. potatoes

### 11. Criteria for assessing the performance of a skill:

| № | Accomplishments | Criteria for evaluation                                    |
|---|-----------------|--|
| 1 | Fulfilled       | All steps count when done correctly.                       |
| 2 | Done in half    | Read with minor errors.                                    |
| 3 | Did not comply  | Gross mistakes were made during the execution of the task. |


### 12. Main literature:

1. Эндокринология. Национальное руководство (+ CD-ROM): — Москва, ГЭОТАР-Медиа, 2013 г.- 1084 с.

2. Эндокринология. Учебник: И. И. Дедов, Г. А. Мельниченко, В. В. Фадеев — Москва, ГЭОТАР-Медиа, 2014 г.- 432 с.

3. Эндокринология: — Москва, ГЭОТАР-Медиа, 2012 г.- 384 с.

4. Эндокринология: И. И. Дедов, Г. А. Мельниченко, В. В. Фадеев — Санкт-Петербург, ГЭОТАР-Медиа, 2012 г.- 432 с.

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### 13. Correct answer sheet for self-assessment materials

|    |   |
|----|---|
| 1  | Д |
| 2  | Е |
| 3  | Е |
| 4  | Е |
| 5  | Д |
| 6  | С |
| 7  | Д |
| 8  | В |
| 9  | Д |
| 10 | А |