



ОНТҮСТІК ҚАЗАҚСТАН МЕДИСІНА АКАДЕМИЯСЫ «Онтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Department of Infectious Diseases and Dermatovenereology		044-49/11
The algorithm of serum administration by the Bezredko method.		

**Guidelines for teaching clinical skills
 at the Practical Skills Center
 (using the execution algorithm)
 using the serum injection algorithm by the Bezredko method**

Specialty: "General Medicine"
 Discipline: Infectious diseases
 Course: 4
 Department: Infectious Diseases and Dermatovenereology
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Considered at the meeting of the department

Protocol No. 4 of 30/11, 2022

Head of the Department Abuova G.N. Candidate of Medical Sciences, Professor
 Abuova G.N.

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1. Name of the clinical skill: The algorithm of serum administration by the Bezredko method.

2. The purpose of training:

Practicing the skills of serum administration by the Bezredko method.

3. Time required for preliminary instruction and demonstration of the skill: 7 min.

4. Time required for self-mastery of the skill: 15 min.

5. The necessary theoretical knowledge to master the clinical skill:

1. Etiology, pathogenesis, epidemiology of botulism.
2. Clinical classification of botulism.
3. Diagnostic criteria of botulism.
4. Clinical and laboratory criteria for botulism.
5. Differential diagnosis of botulism.
6. Complications of botulism.
7. Specific treatment of botulism.
8. Indications and contraindications to the introduction of serum.

6. List of simulators, mannequins, models, visual aids:


1. Hand trainer for injection.
2. Video on the technique of introducing serum by the Bezredko method.

7. List of medical devices and equipment:

1. Injection arm trainer;
2. Rubber gloves (disposable latex);
3. Mask, tetanus serum;
4. 70% alcohol, cotton wool, tuberculin syringes;
5. The clock.

8. Skill execution algorithm:

№	Step-by-step actions	Completed	Not completed	Note
1	I washed my hands with warm water, treated them with alcohol, and put on disposable rubber gloves.			
2	Seated or laid the patient so that his forearm was in a			

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	position convenient for injection.			
3	I took a diluted 1:100 serum into a syringe, treated the injection site with a swab soaked in 70% alcohol solution and injected 0.1 ml intradermally into the middle third of the forearm (the needle section is facing the top).			
4	Monitors the injection site and the patient's condition for 20 minutes (redness and itching at the injection site, fever).			
5	With a negative intradermal test, I filled the syringe with undiluted serum in the amount of 0.1 ml, treated the injection site and injected subcutaneously into the shoulder area.			

9. Tasks:

1. Determination of indications for the introduction of serum.
2. Master the algorithm of serum administration by the Bezredko method.

10. Materials for self-assessment on the topic of the lesson:

1. The most important symptom in the diagnosis of botulism:


- A. intoxication
- V. paralytic
- C. Meningeal
- D. Hepatolienal
- E. dyspeptic

2. Name the factor of the spread of botulism:

- A. canned mushrooms
- B. beef stew
- C. apple juice
- D. Homemade cream
- E. fried fish

3. In order to avoid allergic reactions when introducing serum, the patient is injected with:

- A. antiviral drug

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- B. antibiotic
- C. Hormone
- D. Nonsteroidal anti-inflammatory drugs
- E. Vaccine

4. Types of anti-botulinum serum:


- A. Type A, B, G
- B. Type A, B, C
- C. Type A, B, D
- D. A, B, I Type
- E. Type A, B, E

5. A 5-year-old boy was taken to the emergency room. According to his mother, he has been ill for 2 days, complains of weakness, shakiness when walking. The child was choking while eating, his voice was hoarse. He was injured a week ago, there were broken windows in the garden. Preliminary diagnosis: Traumatic botulism. By the Bezredko method, before introducing the sample, select the serum dilution option:

- A. in dilution 1:1000 subcutaneously
- B. Intradermal in a dilution of 1:10
- C. Intradermal in a dilution of 1:100
- D. in undiluted form, 0.1 ml subcutaneously
- E. 1:100 times in undiluted form

6. Patient A., 13 years old, was delivered with complaints of weakness, dry mouth, "fog", blurred contours of objects in front of the eyes and their double vision, difficulty swallowing food and saliva, hoarseness of voice, headache, dizziness. On the evening of December 31, he became very ill, edema appeared, and the entire symptom complex was described almost simultaneously. Epidanamnesis: the day before, on December 30, I went to visit a friend. I used canned food, pickled mushrooms and homemade juices. Objectively: the condition of moderate severity, active. His face is pale. Into the lungs - without pathological changes. The respiratory rate is 28-32 per minute, the heart tones are muted. The tongue is dry, overlaid with a white-yellow coating. The belly is soft, painless. Yesterday there was a single stool and a feeling of spilled abdominal pain. Neurological symptoms include ptosis on the left side, limited mobility of the right eyeball, decreased pupillary reaction, difficulty swallowing fluid (without suffocation), slight hoarseness, difficulty speaking.

- A. hormones
- B. bacteriophage

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- C. The vaccine
- D. special serum
- E. antibiotics

7. Special botulism therapy:

- A. introduction of anti-botulinum serum
- B. Administration of botulinum toxin intravenously
- C. Oral administration of probiotics
- D. Introduction of muscle relaxants
- E. Intravenous administration of antispasmodics

8. The first sample is injected using the Bezredko method:

- A. intravenously
- B. Intramuscularly
- C. under the tongue
- D. to the center of the inner side of the wrist
- E. to the shoulder muscle

9. A secondary test is administered using the Bezredko method:


- A. intravenously
- B. Intramuscularly
- C. under the tongue
- D. to the center of the inner side of the wrist
- E. to the shoulder muscle

10. Differential diagnosis of botulism is not carried out:


- A. for hepatitis
- B. for meningitis
- C. for encephalitis
- D. in case of poliomyelitis
- E. for diphtheria

11. Criteria for evaluating the performance of the skill:

№	Implementations	Evaluation criteria
1	Completed	All steps are taken into account when performed

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		correctly.
2	Half done	It is counted for small errors during execution in 3 steps
3	Did not complete	Makes mistakes during execution by more than 3 steps.

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12. Literature:

Main:

1. Abuova, G. N. Zhukpaly aurular boyynsha darister zhinagi: oku kuraly / G. N. Abuova. - Shymkent : OKMFA, 2017. - 245 b.
2. Abuova, G. N. Zhukpaly aurular boyynsha darister zhinagi: oku kuraly / G. N. Abuova. - Shymkent : OKMFA, 2016. - 245 bet p.
3. Infectious diseases: national guidelines/Edited by N.D.Yushchuk, Yu.Ya.Vengerova. – M.: GEOTAR-Media, 2010. – 1056 p.
4. Infectious diseases: a course of lectures / Ed. Prof. V.I. Besteva, prof . S. N.Zharova – M.: GEOTAR-Media, 2014. – 512 p.

Additional:

1. Infectious diseases: a course of lectures / Ed. Prof. V.I. Besteva, prof . S. N.Zharova – M.: GEOTAR-Media, 2014. – 512 p.
2. Abuova, G. N. Zhukpaly aurular boyynsha darister zhinagi[Electronic resource]: oku kuraly / G. N. Abuova. – Electron. Text data. (2.06MB). – Shymkent: OKMFA, 2016. – 245. p.

Standards of correct answers for the assessment material:

- 1 - In
- 2 - A
- 3 - C
- 4 - E
- 5 - C
- 6 - D
- 7 - A
- 8 - D
- 9 - E
- 10 - A