

ONTÜSTIK QAZAQSTAN MEDISINA АКАДЕМИЯСЫ «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Department of Infectious Diseases and Dermatovenereology		044-49/11
Algorithm for sampling a smear from the nose and oropharynx		

**Guidelines for teaching clinical skills
 at the Practical Skills Center
 (using the execution algorithm)
 using the smear sampling algorithm from the nose and oropharynx**

Specialty: "General Medicine"
 Discipline: Infectious diseases
 Course: IV
 Department: Infectious Diseases and Dermatovenereology
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Department of Infectious Diseases and Dermatovenereology		044-49/11
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Considered at the meeting of the department

Protocol No. 4 of 30.11 2022

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

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1. Name of the clinical skill: Algorithm for sampling a smear from the naso and oropharynx.

2. The purpose of training: Practicing the skills of taking a smear from the naso and oropharynx.

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 COVID-19.
2. Clinical classification of COVID-19.
3. Criteria for clinical diagnosis, differential diagnosis of COVID-19.
4. Clinical and laboratory criteria for COVID-19.
5. Standard definition of COVID-19 cases (presumed, probable and confirmed).
6. Principles of etiotropic and pathogenetic therapy of various clinical forms of COVID-19.
7. Complications of COVID-19.
8. Anti-epidemic measures in the focus of infection.

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

1. Simulator VOLODYA-ENT oropharynx
2. Video on the technique of taking a smear from the nose and oropharynx

7. List of medical devices and equipment:

- 1) disposable rubber gloves;
- 2) test tubes with tampon sticks wrapped with a decontaminated dry cotton swab;
- 3) test tube tripods;
- 4) cryoprobes with a conveying medium;
- 5) sterile spatula and tray;
- 6) referral form to the laboratory.

8. Skill execution algorithm:

№	Step-by-step actions	Com plete d	Not compl eted	Note
1	I washed my hands with warm water, treated them with			

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	<p>alcohol, and put on disposable rubber gloves. The material is taken after rinsing the oropharyngeal cavity with boiled water at room temperature. If the nasal cavity is filled with mucus, it is recommended to blow your nose before the procedure. Within 6 hours before the procedure, medications that irrigate the nasopharynx or oropharynx and drugs for resorption in the mouth should not be used. To obtain the material, 2 sterile polystyrene probes with viscose tampons and one disposable test tube with 0.5 ml of "Transport medium for storing and transporting respiratory smears" (colorless) are used. Smears from the mucous membrane of the nasopharynx and pharynx are combined in one test tube.</p>			
2	<p>Smears from the nasopharyngeal mucosa. The smear is taken with a dry sterile probe extracted from an individual package. The probe is inserted with a light movement along the outer wall of the nose to a depth of 1-3 cm to the lower shell, slightly lowered down, inserted into the lower nasal passage under the lower nasal shell (the total depth of penetration of the probe is 5 cm for adults and 3 cm for children), make a rotational movement and remove along the outer wall of the nose. After collecting the material, the working part of the probe with a swab is placed in a test tube with a "Transport medium for storing and transporting respiratory smears". The end of the probe with a tampon is broken off into a test tube, holding the lid of the test tube so that it allows the tube to be tightly closed.</p>			
3	<p>Oropharyngeal swabs. The smear is taken with a second probe by rotational movements from the surface of the tonsils, palatine arches and the posterior wall of the oropharynx. After taking the material, the working part of the probe with a swab is placed in a test tube with a "Transport medium for storing and transporting respiratory smears" and a probe with a smear from the nasopharynx. The end of the probe with a tampon is broken off into a test tube, holding the lid of the test tube so that it allows the tube to be tightly closed. The test tube is labeled</p>			
4	<p>After collecting the material, place the tampon in a test tube without touching its edges.</p>			

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5	<p>Wash and treat your gloved hands with antiseptic, then remove the mask, gloves, dump them into a container and wash your hands..</p> <p>Package. To transfer samples to the laboratory, the test tube is placed in an individual package (a bag with a sorbing cloth). Send the material to the tank.laboratory immediately or no later than 3 hours, subject to storage in the refrigerator.</p> <p>At a temperature of 2 to 8 ° C for 1 day.</p>			
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9. Tasks:

To study the algorithm of taking smears from the naso and oropharynx for the purpose of bacteriological and virological examination of patients.

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

1. Incubation period for coronavirus infection– COVID-19:

- A. on average 3-5 days
- B. on average 1-2 hours
- C. on average 2-14 days
- D. on average 20-21 days
- E. on average 12-48 hours

2. Identify the leading clinical variant of the development of coronavirus infection – COVID-19 in adults:

- A. Variant with damage to the upper respiratory tract (rhinopharyngitis, tracheitis)
- B. Bronchoobstructive
- C. Cerebral
- D. Hemorrhagic
- E. Abdominal

3. A smear on the microflora from the throat and nose is taken in the following cases: For

- A. Diagnosis of angina caused by beta-hemolytic streptococcus, which, in turn, causes severe complications such as myocarditis, glomerulonephritis and rheumatism;
- B. diagnosis of coronavirus infection
- C. diagnosis of gastrointestinal diseases
- D. with suspected diphtheria

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E. diagnosis of pyelonephritis

4. Indications for bacteriological examination:

- A. patients with suspected diphtheria
- B. Contact with a diphtheria patient
- C. contact with patients with coronavirus infection
- D. contact with doctors
- E. Contact with SARS patients

5. Storage conditions of the material for bacteriological laboratory:

- A. from 2 to 8
- B. from 6 to 10
- C. temperature does not matter
- D. room temperature
- E. from 1 to 5C

6. Express method of antigen detection in a smear with Covid-19 ?

- A. PCR
- B. CT
- C. Radiography
- D. Bacteriological analysis
- E. UAC

7. If we suspect any diseases, we are obliged to get a smear from the patient's nose?

- A. Rheumatism
- B. ARVI
- C. Cholecystitis
- D. Gastritis
- E. Bronchiectasis

8. Storage of the material during the year is possible at a temperature no higher than

- A. - 68
- B. -36.6
- C. -10
- D. It cannot be stored for a year.
- E. -23 C

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9. Medical care for a patient with a positive test result for COVID-19 can be provided at home in the case of:

- A. An unsympathetic manifestation of the disease in persons older than 70 years
- B. An unsympathetic manifestation of the disease in persons younger than 20 years
- C. Absence of clinical manifestations of the disease or mild course in patients aged 25-60 years
- D. If the patient wishes to stay at home
- E. It is impossible by no means

10. All removed clothing that is subject to reuse undergoes disinfection treatment:

- A. Steaming at maximum power mode
- B. Full immersion in a tank with a disinfectant solution
- C. Forced drying in the disinfection chamber
- D. By hard X-ray irradiation for 15 minutes
- E. By Hard X-ray irradiation for 30 minutes

11. Criteria for evaluating the performance of the skill:

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

12. Literature:

Main:

1. Abuova, G. N. Zhukpaly aurular boyynsha darister zhinagi: oku kuraly / G. N. Abuova. - Shymkent : OKMFA, 2017. - 245 b.
2. Guide to practical classes on infectious diseases for students of medical universities. E. S. Belozarov, Yu. V. Lobzin, E. I. Arkhipova, Publishing House SpetsLit, 2017; 576 p.
3. National Guide to Infectious Diseases +CD. Ed. Yushchuk N.D., Vengerova Yu.Ya., 2009.

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Additional:

1. Diagnosis of a typical case of an infectious disease (standardized patient).
Textbook. N.D. Yushchuk, E.V. Volchkova. Geotar-Media Publishing House, 2017; 454 p.
2. Differential diagnosis of infectious diseases. Guide for doctors. V. A. Kazantsev, A. P. Kazantsev; Publishing House; Medical Information Agency (MIA), 2013 496 p.
3. Family doctor's Handbook. Infectious diseases. Zakharenko S.M., Finogeev Yu.P. Publishing House, 2014; 528 p.
4. Infectious diseases. Textbook. N. D. Yushchuk, G. N. Karetkina, L. I. Melnikova; Geotar-Media Publishing House, 2015; 512 p.
5. Atlas of Infectious Diseases; Vladislav Ivanovich Bestev; Sergey Nikolaevich Zharov, Vladimir Vladimirovich Nikiforov, Geotar-Media Publishing House, 2014; 224s.
6. Standard definitions of cases and algorithms of measures for infectious diseases. Vol. 1 [Text] : practical manual. / S. A. Amireev [et al.]. - 2nd ed. supplement; Ministry of Health and Social Development of the Republic of Kazakhstan. KNMU named after S. D. Asfendiyarov.

Standards of correct answers for evaluation material:

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