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### I. K. AKHUNBAYEV KYRGYZ STATE MEDICAL ACADEMY KSMA provisions on the objective structured clinical

#### examination

«Approved»		
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## PROVISIONS ABOUT THE OBJECTIVE STRUCTURED CLINICAL EXAM 1. General positions.

The Objective Structured Clinical Examination (OSCE) is a method of assessing the clinical competence of students in medical universities and in postgraduate training of specialists on the basis of objective testing through the performance of clinical tasks.

The method of assessing the clinical competence of students must meet three criteria: validity, reliability, and feasibility.

The validity of the clinical exam should include the following abilities:

- collect the patient's medical history;
- perform a physical examination of the patient;
- identify the patient's problems from the information received and make a differential diagnosis;
- determine the appropriate research methods;
- interpret research results;
- recommend and conduct appropriate treatment and care of the patient, including patient education;

**The reliability** of the clinical examination should be ensured by observing an objective approach to the assessment. A reliable evaluation procedure should include: the consistency and stability of the evaluation criteria, the consistency of the standardized patient and examiner.

**The feasibility** of a clinical exam includes the following criteria:

- number of students to be evaluated;
- the number of examiners involved, their status and Specialty;
- availability and accessibility of standardized patients;
- availability of a place or appropriate room for the clinical examination;
- criteria for evaluating the results of the exam.

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#### **Main components of OSCE**

The Rector and Vice-Rector for Clinical Training and Research of the KSMA provide general guidance on the organization and conduct of the OSCE.

The OSE is conducted 3-4 times during the entire course of study for students, 2 times of postgraduate studies during the academic year (at the beginning and end of the year of study).

During the training period, clinical residents, interns and students (groups) must repeatedly conduct a trial reception of the patient at the Center for the Development of Clinical Skills and Assessment of Knowledge (CDCSKA), the schedule of visits to the Center is determined by the educational and methodological department (EMD).

- **1.** The Methodological Council the Educational and Methodological Profile Committee (EMPC) is a coordinating advisory body that approves the List of OSCE stations and the list of OSCE examiners.
- **2. Exam coordinators** teachers-specialists of departments, who are responsible for the preliminary planning, organization and conduct of the OSCE in the specialty. Specialized departments of the KSMA allocate a teacher responsible for organizing and conducting the OSCE of the clinical department.
- **3. The list of OSCE stations** The OSCE exam should reliably assess the clinical competence of students and may include: collecting anamnesis, writing a medical history, conducting an objective physical examination of the patient, the technique and procedure for performing skills, interpreting data from laboratory and instrumental research methods, consulting and communication skills of the student with the patient, etc. (established by the EMPC).
- **4. Criteria for scoring points** for the evaluation (form of the evaluation sheet). A rating sheet is developed for each station. The preparation of the assessment sheet requires the preliminary determination of objective criteria for each task, which are based on the goals and objectives of the curriculum of the specialized department. The assessment is carried out in points, and the sum of the points issued by the examiner allows to evaluate the performance of the task by the student at the station. The department develops a list of questions (the evaluation sheet is approved by the EMPC), to which the examinee must give a certain number of answers, depending on the percentage of the total number of questions.
- **5. Examinees** (students, interns, clinical interns). The examiners should be provided with complete instructions containing an exact indication of the place and time of the exam, clearly and briefly setting out the rules of movement from station to station, a list of clinical skills that will be performed at the OSCE stations.
- **6. Examiners,** at the station can be teachers of departments conducting the OSCE and doctors of practical health care. 8 weeks before the exam, examiners must be provided with a complete description of the relevant stations.

- **The location** of the exam. Schematically, all stations are marked and samples of the traffic flow of the examinees are shown. The location of the examination rooms should be such that the bell or horn indicating the time of transition to the next station should be clearly audible at all stations.
- \*Examination stations: clinical stations-includes interaction of students with a real or standardized patient, Practical stations-includes performing technical procedures (injections, ECG recording, etc.) Static stations (Static station/Non-Interaction stations) do not include communication with standardized patients, examinees perform various written tasks: interpreting the results of laboratory and instrumental data, treatment plan, prescribing treatment, prescribing prescriptions, which are then collected for evaluation.
- \* The standardized patient presents not just a medical history, but shows the manifestations of the disease, conveys the emotional and personal characteristics of the simulated patient. A standardized patient can participate in the OSCE only after appropriate training and training. Standardized patients have several distinctive advantages over real patients: they can be monitored, their medical history is more revealing, and simulations of disease manifestations can be standardized. Using standardized patients, it is easy to control the level of difficulty of the exam station, and their use during subsequent exams can allow to accurately compare the results of various students 'assignments.
- \* The person responsible for controlling the exam time and the signal time (bell or horn) the coordinators of the OSCE of the specialized departments of the KSMA, pre-instructs their assistants and coordinates with the exam coordinators the exact time of the exam, the time spent at the station, the time of transition from the station to the next station. Also prepares rooms for video surveillance.
- \* Analysis and evaluation of the implementation of the OSCE. Heads of specialized departments are responsible for the analysis of the OSCE. The analysis of the tasks included in the OSCE should be complete in order to determine the indicator of the difficulty of each station in relation to the exam as a whole and to differentiate the levels of completion of tasks by students.
- 2.4. Tasks at the OSCE stations. The tasks to be performed by the trainees must be clearly defined, and precise and clear instructions are provided to the trainees, examiners, standardized patients, a score sheet and scoring system, a list of equipment (equipment, scenario for standardized patients, characteristics of standardized patients, assistance from technical support personnel).

To ensure a wide coverage of the training material, an adequate number of tasks (situational tasks) of appropriate duration should be provided.

#### 3. Organization of the OCE

- 3.1. The coordinators of the OSCE of the specialized departments of the KSMA, together with the department of educational, organizational and methodological work (EOMWD), the director of the CDCSKA, carry out the preliminary planning, organization and conduct of the exam. The schedule of the OSCE is drawn up after coordination with the EOMWD, deans and presentation to the departments. "The schedules of the OSCE in the CDCSKA and "The list of students admitted to the OSCE" are coordinated with the deans, vice-rectors and approved by the order of the rector.
- 3.2. The OSCE coordinators of specialized departments hold a meeting with the teachers-examiners and the staff involved in the exam. During the meeting, they discuss the procedure for conducting the exam, determine and agree on the responsibility of each examiner, appoint responsible teachers for instructing students on the day of the exam. Each examiner is provided with information about the time and place of the exam, a list of all stations in the exam, where it is noted at which station they are the examiner; a list of students; a rating sheet for each station.
- 3.3. The list of OSCE stations is developed by the OSCE coordinators of specialized departments, taking into account the competencies that will be tested (collecting anamnesis/medical history, objective physical examination, performing manipulations, interpreting the results of laboratory and instrumental data, communication skills and consulting patients) and the clinical situations in which these competencies should be performed.
- 3.4. The coordinators of the OSCE of specialized departments are responsible for completing the stations with equipment and preparing all the necessary documentation for the exam: assessment sheets; instructions for examiners and examinees; a list of students taking the exam; a list of all stations, a list of examiners and a list of equipment required for each station; a plan for the location of stations.

1 day before the exam, the responsible staff prepares the stations. On the door of each station, a brief information for the student and the serial number of the station are posted.

#### 4. Conducting the OSCE

4.1. On the day of the exam (before the start of the exam), the coordinator of the OSCE of the specialized departments of the KSMA must first check the location and numbering of each station; the availability of the necessary equipment for each station, equipment; the presence of all examiners, scheduled standardized patients; check the readiness of teachers to instruct students; the readiness of assistant secretaries.

Examiners, students must come the place of passing the CDCSKA exam 30 minutes before the start of the exam. Orientation instructions are given for each group separately.

4.2. After completing the exam, make sure that at the end of the exam, the answer sheet is collected from each student and a set of assessment sheets with grades from each examiner, which should be handed over to the person responsible for collecting and preserving the examination documentation.

4.3. Summing up the results of the exam is carried out by the examination committee. The result of the exam is the sum of all the points received when completing the task at each station. Any problems encountered in the organization and conduct of the exam should be considered and taken into account at the next exam. Any suggestions that could improve the conduct of subsequent examinations should be taken into account. Teachers and examiners should discuss the results of the clinical tasks performed by students on the exam, so that the identified shortcomings are taken into account to improve student learning.

At the end of the exam, the teachers discuss the results of the exam with the students, a video recording is played, and the students are interviewed.

#### 5. Development of clinical scenarios

- 5.1. Clinical scenarios are developed to combine in one clinical case several clinical skills learned in different disciplines, as well as to develop clinical thinking. The department uses critical situations in accordance with the standard curriculum for the discipline. Clinical scenarios are developed for 10-15 minutes. For this period students must provide emergency care to the "patient", perform clinical skills, make appropriate notes, etc. The clinical scenario template is provided in Appendix No. 1.
- 5.2. Before conducting the clinical scenario, the teacher must clearly define the purpose of the training session. During the clinical scenario, the teacher should clearly instruct the students performing the procedure, observing and evaluating.



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#### **APPLICATIONS**

Forms of specialized departments for CDCSKA

Appendix No. 1

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Name of the specialized department

#### CLINICAL SCENARIO

CLINICAL SCENARIO
Name of the clinical scenario
Discipline:
Specialization:
Topic of the practical lesson:
Target audience:
Compiler:
Structure of the clinical scenario:
1. Name of the clinical scenario:

- **2. Target audience**: students, clinical residents, interns.
- 3. Learning tasks:
- \* basic no more than 5
- \* additional development of technical skills, behavior, theoretical knowledge.
- 4. Learning environment/settings:
- \* Study room furniture: medical equipment, tools, furniture, etc.
- \* Dummies, simulators: a list of required dummies, simulators
- \* Additional materials: ECG records, X-rays, laboratory data, etc.
- \* **Distractors**: a list of distractors (setting, actors, distractions).
- \* Standardized patients/actors:
- \* **Roles** nurse, doctor, relatives, patients, indicating, if necessary, the required gender, age, type of disease, etc.
- \* Description of roles in the script
- 5. Clinical case
- \* **Information for the student**-specify whether it will be provided immediately or whether it must be requested and may include the following:
- main complaints, referral for examination/treatment;
- anamnesis of the disease:

- medications taken and allergic history;
- family/social history.



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- \* Initial conditions for the scenario may include the following:
- description of the information provided by the standardized patient;
- physical examination data;
- physiological parameters.
- \* Further development of the scenario-may include the following:
- changes in the patient's condition;
- responses to the treatment;
- possible directions of scenario development;
- **6. Information for teachers/technical staff** what the teacher / technical staff needs to do to complete the scenario. May include the following:
- what parameters should be configured initially on the dummy and how to change them later when executing the script;
- \* responses/actions of the standardized patient to questions or actions of the student.

#### 7. Evaluation of actions

Must be consistent with the learning objectives and may include:

- \* An action assessment sheet;
- sequence of actions;
- time to complete actions;
- \* final assessment;
- \* assessment of behavior/teamwork;
- \* criteria for completing skills.

#### 8. Discussion plan for the exam results:

- \* Methods-individually, in a group, with video viewing, with additional information support (computer programs, articles, handouts).
- \* Discussion materials.
- \* Possible issues for discussion.
- **9. Piloting a clinical** case-indicate when the case was piloted, the number of participants, the response of participants, etc.
- **10. Conducting** a survey of students and examiners.
- **11. Information** about the authors of the script-specify the full name and positions of the authors of the script.

#### APPROVAL SHEET

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