

Ministry of Health of Ukraine
Vinnytsya National Pirogov Memorial Medical University

"AGREED"

at Methodical meeting
of dental disciplines

Protocol № 8
from " 26 " 04 2023

Head of Methodical meeting,
professor of HEI

 Serhii SHUVALOV

"APPROVED"

by Academic council
Vinnytsya National Pirogov
Memorial Medical University

Protocol № 7
from " 27 " 04 2023

Head of Academic council,
professor of HEI

 Victoriia PETRUSHENKO

Objective structured practical (clinical) exam on discipline
“Orthopedic Dentistry”
in 2022/2023 academic year
specialty 221 "Dentistry"

Instructions for the station №6

«Clinical situational task in Orthopedic Dentistry»

Instructions for the station №6

« CLINICAL SITUATIONAL TASK IN ORTHOPEDIC DENTISTRY »

Task:

1. Be able to establish a preliminary and main diagnosis.
2. Carry out differential diagnosis of diseases.
3. Possession of methods of main and additional methods of examination
4. Be able to evaluate the results of additional laboratorial and instrumental methods of examination.
5. Make a treatment plan.
6. Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial area.
7. Choose the most rational type of prosthetics.

Material and technical support of the station: dental phantom of the patient, stomatological aimchair with handpeices and saliva ejector, standard set of dental instruments, models of jaws and X-rays of patients, an antiseptic for hands, a pencil, tasks.

Equipment for remote form of OSCE and clinical tasks, conventional patients. On the day of the exam, the secretary of the State Examination Commission joins to the meeting the examiner and the student which passes the exam according to the schedule. At the station, the student must greet and introduce himself and **show the ID card (passport)**. The student receives a practical task, which provides the ability to establish a preliminary and main diagnosis, to evaluate the results of additional laboratorial and instrumental methods of examination, to make a treatment plan, to treat major diseases of organs and tissues of the oral cavity and maxillofacial area, to choose the most rational type of prosthetics.

The duration of the station is 10 minutes. At the end of the time at the station, the examiner evaluates the answer.

Members of the examination commission do not interfere in the process of task performance, communicate with applicants only at the stage of information communication, monitor the correctness of performance and put in the checklist score for each criterion specified in a specially designed evaluation letter for a particular station OSCE.

Note that the examiner is an observer of your actions and does not provide instructions, comments or asking the questions.

Requirements for passing the station:

- Use a computer or laptop during the response.
- the answer is accepted under the condition of the working camera, where the student who passes the exam is clearly visible, and the included microphone with a clear sound;

- video is recorded while working at the station.

It is forbidden to use a mobile phone and other electronic gadgets out of answer during the exam, to transmit, copy and take out any information related to the exam.

In context of distance learning (in order to prevent the spread of the respiratory disease COVID-19 caused by coronavirus SARS-CoV-2), the procedure for the conduct of objective structured clinical examination (OSCE) is determined by Regulation for the introduction of distance learning components in National Pirogov Memorial University, Vinnytsya, and it will take place on the online platforms Microsoft Teams or Google Meet .

Part of OSCE- in Orthopedic Dentistry and Implantology consists of two stations.

Station №6 « Clinical situational task in Orthopedic Dentistry »

An example of evaluating of the answer of a higher education applicant (HEA) for the clinical situational task

Situational task

The 45-year-old patient went to the orthopedic dentistry clinic with complaints of sharp pain in the sublingual area, which appears after the imposition of a partial removable plate prosthesis, made 6 days ago. Objective: 2 teeth covered with artificial crowns are preserved on the lower jaw. In the area of the bridle of the tongue ulcer with swollen edges and bleeding bottom, sharply painful on palpation. When applying a partial removable plate prosthesis with clasp fixation on 33, 43 teeth, the edge of the prosthesis covers the bridle by 3-4 mm

The answer scheme includes:

1. Demonstrate the method of objective examination of patient (phantom).
2. Make a diagnosis taking into account the data of objective examination of patient
3. Find the cause of disease.
4. Make a plan of treatment.
5. Prescribe the conservative treatment after eliminating the cause.

Example of answer and points:

| Parameters that evaluate | Student answer | Point and traditional mark |
|--|---|---|
| Demonstrate the method of objective examination of patient (phantom). | Consistently visually, the student conducts an external oral examination, determines the symmetry and proportionality of the face. Then he performs a palpatory extraoral examination: palpates the TMJ, regional lymph nodes. After that, the student proceeds to the intraoral examination. Begins examination of the oropharynx (bridles of the upper and lower lip, buccal cords, mucous membrane of the orifice, transitional folds), examines the oral cavity itself: mucous membrane, tongue, bridle of the tongue, hard and soft palate, salivary glands and their ducts, teeth and dentitions. | 0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 <0,59 / 2 |
| Make a diagnosis taking into account the data of objective examination of patient. | Based on the data of objective examination, he diagnoses: Acute traumatic prosthetic stomatitis (decubitus ulcer). | 0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 <0,59 / 2 |
| Find the cause of disease. | Injury of the bridle of the tongue by the edge of the prosthesis. Shorten the edge of the prosthesis in the bridle. | 0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 <0,59 / 2 |
| Make a plan of treatment. | Shorten the edge of the prosthesis in the bridle, prescribe conservative treatment. | 0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 <0,59 / 2 |
| Prescribe the conservative treatment after eliminating the cause. | Antiseptic rinsing of the oral cavity with "Stomatidine", "Givalex". | 0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 <0,59 / 2 |
| The maximum number of points per station is 5 | | |

Situational task № 1

Conduct an objective examination of a 38-year-old patient with partial secondary adentia in the presence of a bilateral end defect of the dentition of the upper and lower jaw. Objectively: no 16,17,18 / 25,26,27,28 on the upper jaw and 45,46,47,48 / 35, 36, 37, 38 on the lower jaw. Preserved teeth are stable, crowns are high, the correct anatomical shape. 15 tooth is filled. On the radiograph 15 of the tooth is determined by one wide canal filled with filling material only in the lower third of the canal. At the top of the root there is a granuloma. On the gums in the apex of the root of the 15th tooth can be seen fistula. The tooth has a degree of mobility of the II degree.

The answer scheme includes:

1. Demonstrate the method of objective examination of patient.
2. Make a diagnosis on the stone cast according to Kennedy's classification.
- 3 Calculate the masticatory efficiency according to Agapov.
- 4 Write the treatment plan of patient's preparation to prosthesis.
5. Choose the most suitable denture for the patient taking into account the patient's refusal of dental implantation.

Situational task № 2

The 45-year-old patient went to the orthopedic dentistry clinic with complaints of sharp pain in the sublingual area, which appears after the imposition of a partial removable plate prosthesis, made 6 days ago. Objective: 2 teeth covered with artificial crowns are preserved on the lower jaw. In the area of the bridle of the tongue ulcer with swollen edges and bleeding bottom, sharply painful on palpation. When applying a partial removable plate prosthesis with clasp fixation on 33, 43 teeth, the edge of the prosthesis covers the bridle by 3-4 mm.

The answer scheme includes:

1. Demonstrate the method of objective examination of patient (phantom).
2. Make a diagnosis taking into account the data of objective examination of patient.
- 3 Find the cause of disease.
- 4 Make a plan of treatment.
5. Prescribe the conservative treatment after eliminating the cause.

Situational task № 3

A 28-year-old patient went to the orthopedic dentistry clinic with complaints about the absence of a tooth crown in the frontal area of the upper jaw, an aesthetic defect, and pronunciation disorders. History: the crown of the tooth is missing due to injury a year ago. Objective: The anatomical crown of 21 teeth is missing. The root protrudes above the level of the gums by 1 mm, the surface of the root stump is dense, the root canal is sealed. Percussion is painless. The position of the antagonists of 21 teeth is not changed. The bite is orthognathic. On the radiograph: the root canal 21 of the tooth is sealed qualitatively to the apex, there are no changes in the periapical tissues.

The answer scheme includes:

1. Demonstrate the method of objective examination of patient.
2. Make a diagnosis taking into account the data of objective examination of the patient
- 3 Define Milikevitch's index for 21 tooth having the defect
- 4 What requirements to the dental root in case of its further usage in order to restore the dental crown do you know?
5. Suggest a denture to restore the anatomical shape of the tooth crown.

Situational task № 4

The patient, 34 years old, went to the orthopedic dentistry clinic with complaints of an aesthetic defect in the frontal area, the mobility of the frontal group of teeth. Objectively: all teeth are preserved, the mucous membrane of the gingival margin is hyperemic, swollen, when pressed, a small amount of purulent exudate is released from under the gums. There are deep periodontal pockets. There are supragingival and subgingival calculus in the area of the necks of the front teeth. The 11th tooth with the medial surface enters the 21st tooth. According to the patient, the position of the teeth was correct before. The crowns of the teeth are high. Mobility of 12, 22, 32, 31, 41, 42 teeth of the II degree, 11, 21 - I degree. On the radiograph of 12-22 teeth there is a horizontal atrophy of bone tissue by $1/3 - 1/2$ of the root length.

The answer scheme includes:

1. Demonstrate the method of objective examination of patient.
2. Make a diagnosis taking into account data of objective examination of the patient
- 3 Write the treatment's plan
- 4 What does the conservative treatment of periodontum mean?

5. What splints used for the permanent treatment do you know?

Situational task №5

The patient, 50 years old, went to the orthopedic dentistry clinic with complaints of difficulty eating due to loss of teeth on the right upper jaw. History: teeth began to lose 5 years ago, the last removal was a year ago. Objectively: 17-14 teeth are missing, 47, 46, 13, 36, 37 teeth are filled, 47, 46, 45, 44 teeth are displaced vertically above the occlusal plane by 1.5 mm and interfere with prosthetics. The necks of the teeth are not exposed, the teeth are stable, percussion is painless. The edge of the alveolar process in the area of 43, 44, 45 teeth slightly protrudes relative to adjacent areas. The bite is orthognathic.

The answer scheme includes:

1. Demonstrate the method of objective examination of patient
2. Make a diagnosis according to Kennedy's classification
3. Write the treatment's plan
4. Suggest how to eliminate occlusal disorders?
5. What type of prosthesis is more appropriate to use in this case?

Situational task № 6

The patient is 30 years old, went to the orthopedic dentistry clinic with complaints of loss of teeth in the left lower jaw, difficulty chewing. History: Teeth were lost during the year, the last removal was 3 months ago. Objective: Facial configuration is not disturbed, SOPR without pathological changes. Missing 35 and 36 teeth. 25, 26, 34, 37 teeth are stable, the position is not changed, intact. The bite is orthognathic.

The answer scheme includes:

1. Demonstrate the method of objective examination of patient.
2. Make a diagnosis on the stone cast according to Kennedy's classification.
3. Calculate the masticatory efficiency according to Agapov.
4. What kinds of prostheses are possible to use in this clinical case?
5. Name the type of prosthesis that is most appropriate to use in this case and list the clinical stages of its manufacture

Situational task №7

The patient, 37 years old, went to the orthopedic dentistry clinic with complaints about the absence of some front teeth of the upper jaw, difficulty chewing, aesthetic defect, pronunciation disorders. Objective: 21 and 22 teeth are missing. 23 tooth is inclined towards the defect so that between it and 24 tooth there is a tremor of 1 mm. In the area of the defect there is atrophy of the alveolar process at a height of 1 mm. The shape of 13, 12, 23 teeth is triangular with a difference of a cutting edge and a neck of teeth in 2 mm. Teeth are lost due to injury. 31, 32 teeth are displaced vertically above the occlusal plane by 1 mm and have bare necks.

The answer scheme includes:

1. Demonstrate the method of objective examination of patient.
2. Make a diagnosis taking into account Kennedy's classification and classification of dentures' deformations.
3. What prosthesis is possible to use for the patient?
4. Name the type of prosthesis that is most appropriate to use in this case.
5. Suggest which support elements of the prosthesis should be preferred?

Situational task №8

The patient, 60 years old, went to the orthopedic dentistry clinic with complaints of inability to chew, pain in the masticatory muscles and in the lower jaw. The pain appears when using full removable dentures made a month ago on both jaws. Objective: the configuration of the face is disturbed. The lower third of the face is elongated, the lips close with tension. When you smile, you can see the base of a complete removable prosthesis on the upper jaw. Speech is broken.

The answer scheme includes:

1. Demonstrate the method of objective examination of an edentulous patient.
2. Make a diagnosis taking into account data of objective examination of the patient
3. What error has been made while complete removable dentures manufacturing, and at what stage of manufacturing it has been made?
4. Suggest how to correct the error?
5. Describe the order of defining of vertical dimension in the edentulous patient.

Situational task 9

An 18-year-old patient went to an orthopedic dentistry clinic with complaints of a color change of 21 teeth. From the anamnesis it was established that the tooth was repeatedly filled for caries, fillings often fell out. Objectively: the coronal part of the

21 tooth is restored with a filling material partially from the palatal surface and completely from the distal. Enamel is fragile, the dark fields shine along the edge of the filling material, the pulp is intact, the tooth is stable, percussion is painless. Other teeth are intact, stable. The bite is orthognathic.

The answer scheme includes:

1. Demonstrate the method of objective examination of the patient (phantom)
2. Suggest possible variants for orthopedic structures.
3. Make a treatment plan.
4. Describe the indications for the manufacture of metal-ceramic crowns
5. List the clinical stages of manufacturing a metal-ceramic crown.

Situational task № 10

A 50-year-old patient went to the orthopedic dentistry clinic with complaints of missing teeth on the upper and lower jaws, inability to chew, speech disorders. Anamnesis: The last removal was 4 months ago, the patient has not used prostheses before. Objective: The lower third of the face is reduced, nasolabial and chin convolution are expressed. 17, 15-23, 27, 37, 36, 32-45, 47 teeth are missing. The height of the crowns of 16, 24, 25 teeth is reduced, the masticatory cusps are abraded. 26, 35 teeth have a medial inclination. Alveolar processes in the area of defects of the dentition are well expressed, covered with a dense, low pliable mucous membrane. 16 and 46 teeth in a neutral ratio.

The answer scheme includes:

1. Demonstrate the method of objective examination of the patient (phantom).
2. Establish a diagnosis and determine the loss of masticatory efficiency according to Agapov .
3. Diagnose the model according to the Kennedy classification.
4. Make a plan for orthopedic treatment.
5. Name the type of prosthesis that is most appropriate to use in this case and list the clinical stages of its manufacture.

Situational task № 11

A 36-year-old patient complained about dental prosthetics. Objective: on the chewing surface of the tooth 16 deep carious cavity, all walls of the cavity are saved. It is planned to make a ceramic tab "On lay".

The answer scheme includes:

1. Demonstrate the method of objective examination of the patient (phantom)
2. To which class according to Black's classification does this cavity belong
3. Explain the indications and contraindications to making a tab.
4. What should be the index of destruction of the occlusal surface of the teeth for the tab.
5. Describe the method by which you will make the tab.

Situational task № 12

The patient is 29 years old, complaints about the breakage of the crown of 33rd tooth. Objective: the index of tooth decay (index of destruction of the occlusal surface of the tooth) is 0.9, the root tissues are solid, according to radiography, the canal is sealed to the top, chronic inflammatory processes of the periodontium are not detected. Making a metal tab "Pin lay" for 33rd tooth is planned.

The answer scheme includes:

1. Demonstrate the method of objective examination of the patient (phantom)
2. Explain the indications and contraindications to the manufacture of the tab;
3. What kind of should be the index of destruction of the occlusal surface of the teeth for the tab.
4. List the technologies of making tabs.
5. Describe the method by which you will make the tab.

Situational task № 13

The 45-year-old patient went to the orthopedic dentistry clinic with complaints of inability to chew, pain in the masticatory muscles and TMJ, especially on the right. Unpleasant sensations and pain appeared 3 months ago, immediately after the fixation of the left maxillary prosthesis on the teeth of the upper jaw. Objective: the bite is orthognathic, the midline between the incisors of the upper and lower jaw during the closing of the dentition does not coincide. The lower jaw is shifted to the right. On the upper left jaw there is a stamped-brazed bridge with a support for 24, 27 teeth. The buccal cusps of the intermediate part of the prosthesis are modeled high, prohibit the closure of the dentition in the central occlusion and cause pain.

The answer scheme includes:

1. Demonstrate the method of objective examination of the patient
2. Identify the possible cause of the pathology.
3. Establish a preliminary diagnosis

4. Doctor's tactics.
5. Name additional methods of inspection

Situational task № 14

A 30-year-old patient has an incorrectly fused mandibular fracture with the formation of a vertical gap of up to 2 mm between the incisors of the mandible 31.41 tooth. It is planned to prepare teeth for ceramic veneers.

The answer scheme includes:

1. Demonstrate a method of objective examination of the patient.
2. Explain the classification of veneers.
3. Identify the need and suggest a method of anesthesia.
4. Prepare the vestibular surface and the cutting edge of the 31st, 41st tooth with clear boundaries of the prepared area for ceramic veneer.
5. Retract the gums.

Situational task № 15

A 55-year-old patient, who came for re-admission, is going to have partial removable plate prostheses made on his upper and lower jaws. During the previous visit, complete anatomical impressions were obtained from both jaws, which were then transferred to the dental laboratory. Objectively: the lower third of the face is reduced, nasolabial and chin convolutions are pronounced. 11th, 21st, 22nd, 23rd, 43rd, 44th teeth are saved. 11st, 23rd, 44th, 43rd teeth are covered with metal cast crowns. All teeth are stable.

The answer scheme includes:

1. Demonstrate the method of objective examination of a patient (phantom) with partial absence of teeth.
2. Make a diagnosis based on objective examination data
3. Describe what the doctor has to do during this visit.
4. List the stages of determining the central occlusion in this group of dentition defects.
5. Name how to determine the color of artificial teeth in this patient.