THE MINISTRY OF PUBLIC HEALTH OF REPUBLIC MOLDOVA

**STATE MEDICAL AND PHARMASEUTICAL UNIVERSITY
" NICOLAE TESTEMIŢANU "**

DEPARTMENT OF PROSTHETIC DENTISTRY

METHODICAL ELABORATION

**to practical lessons
III year VI therm**

Kishinev 2018

The list of practical manual skills

on orthopedic dentistry for the students of III year VI semester

Name - _____ Gr. – _____

№	Practical manual skills	Obligatory	Demonstrated	The signature of the student	The signature of the teacher
1	Examination of the patients with partial edentation.	2			
2	Para-clinical examination of patients with partial adentia	2			
3	Examination of dental-periodontal support at treatment with Bridge Dentures	2			
4	Preparation of support teeth at soldering Bridge Dentures manufacturing.		1		
5	Taking impression with alginate imression material (from each other).	5			
6	a)Testing support crowns b) getting impression in occlusion.	2	2		
7	Testing soldering Bridge Denture.		1		
8	Final testing soldering Bridge Dentures.	1			
9	Fixing Bridge Dentures.	1			
10	Examination of patients and determination of indications to console Bridge Dentures	1			
11	a) Preparation of supprt teeth at cast Bridge Dentures; b) getting double impressions (from each other).	2	1		
12	Getting double impressions (from each other).	1			
13	Support teeth preparation at combbined M/A or M/C Bridge Denture manufacturing.		1		
14	Taking impressions at M/A or M/C Bridge Denture manufacturing.		1		
15	Testing metal frame and determination of colour of acryl or ceramic in M/A or M/C Bridge Denture manufacturing		1		
16	Determination of occlusal contacts.		1		
17	Fixing Bridge Denture.	1			

Notes:

1. The practical skills necessary for independent performance and demonstration are carried out with materials destined for the students which are fixed in a special register book.
2. In case of not fulfilling the given list the student is obliged to get practical certification at extra classes (not according to the time-table.
3. According to the decision of department, in exclusive cases, the part of practical skills can be conditionally transferred for performance in the following semester.
4. Writing off materials, intended for performing the practical skills by the students, is carried out according to the working orders of the Ministry of public health Services with factor 2, authorized Administrative Council of Dental Clinic.

Methodical elaboration № 1.

Theme: ***Partial edentation. Etiology and pathogenesis of partial edentation. Clinical picture. Methodology of patients' examination.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about etiology and clinical picture of partial edentation, methodology of patients' examination.
To the students are demonstrated particularities of clinical picture of partial edentation, methodology of patient's examination.
Practically students examine the patients, study diagnostic models, orthopantomogrames, thomogrames of TMJ, received at partial edentation with the purpose of definition of these changes, marking executed manual skills in their diaries.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

The contents of the lesson:

The clinical picture of partial edentation is diverse and depends on etiology, topography of defect, quantity of the lost teeth, their function, general condition of the body etc. Alongside with morphological changes partial edentation results in change of function of mastication, speech, aesthetics and self-preservation. With the purpose of revealing the given changes the examination of the patients will be carried out. The purpose of examination of the patients is to reveal the kind of edentation, its topography, functional changes, to formulate the diagnosis and plan of the treatment. The attention is paid to kinds of prosthetic treatment at partial edentation. The methodology of patients examination provides a sequence of clinical and paraclinical methods. Data, received during examination, are brought in a patient history.

Checking questions:

1. Etiology and pathogenesis of partial edentation.
2. Clinic of partial edentation.
3. What factors does the degree of expressivity of partial edentation symptoms depend on?
4. Clinic at the patients with frontal partial edentation.
5. Clinic at the patients with lateral partial edentation.
6. Characteristic of functional and not-functional groups of teeth.
7. Clinic of functional overloading of remaining teeth at partial edentation.
8. Methodology of examination of the patients with partial edentation.
9. Prevalence of partial edentation in the Republic of Moldova.
10. Principles of partial edentation treatment.

Independent work of the students:

The students write the report on the theme: "Clinic of partial edentation".

Methodical elaboration № 2.

Theme: ***Clinical and paraclinical examination of the patients with partial edentation.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about a sequence of clinical and paraclinical examination of the patients with partial edentation, formulation of the diagnosis depending on a clinical situation.
To the students the sequence of examination of the patients with partial edentation, formulation of the diagnosis and making the plan of treatment are demonstrated.
Practically students participate in reception of the patients, carry out their examination, formulate the diagnosis and make the plan of treatment.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lessons:

At any kind of prosthetic treatment first of all the examination of the patient is carried out, which is divided into clinical and paraclinical. The clinical examination is divided into subjective (that the patient feels) and objective (that the doctor determines). The combination of the subjective data and results of objective methods of examination adding each other, allows more exact determining of etiology, pathogenesis and clinical picture of the given disease, correct diagnosing and making the plan of treatment. Paraclinical examination will be carried out as addition to clinical and is directed on specification of some given pathological process. To them concern: thermometry, electroodontometry, X-ray methods, study of diagnostic models, gnatodynamometry, methods of definition of chewing efficiency, muscles tonicity determination, electromiograpfy, galvanometry, laboratory methods etc. These methods will be carried out if it is necessary to specify the diagnosis. On the basis of the received results of examination the diagnosis is formulated and the plan of treatment is made.

The diagnosis includes the following parts:

1. The basic disease, which is subject to prosthetic treatment and includes morphological and functional changes, and also the etiological factor.
2. Complication of the basic disease (deformation of tooth row, dysfunction of the TMJ etc.).
3. Accompanying stomatological diseases, which it is necessary to take into account at planning the treatment.

Checking questions:

1. Sequence of clinical examination of the patients with partial edentation.
2. Subjective examination and its importance.
3. Objective examination and its sequence.
4. Extraoral symptoms at partial edentation.
5. Intraoral symptoms at partial edentation.
6. Examination of tooth arches and bite.
7. Paraclinical methods of examination of the patients. The indications.
8. X-ray methods of examination of the patients.
9. Methods of examination of TMJ. The indications.
10. Examination of muscles of stomatognat system. Methods.
11. Methods of studying diagnostic models.
12. Methods of definition of chewing efficiency.
13. Classification of defects of tooth rows by Kennedy, Gavrilov, Costa.
14. Components of the diagnosis. Formulation of the diagnosis at partial edentation.

Independent work of the students:

The students write the abstract on the theme:" Clinical examination of the patients with partial edentation"

Methodical elaboration № 3.

Theme: ***Examination of defects of dental arches and dental-parodontal support. Kinds of clinical situations.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about methods of examination of defects of tooth arches and dental-parodontal support, formulation of the diagnosis and planning of prosthetic treatment by artificial Bridge Denture depending on a clinical situation.
To the students is demonstrated examination of dental-parodontal support at partial edentation, paying attention to the condition of the remained teeth at various clinical situations.
Practically students participate in reception of the patients, carry out their clinical and paraclinical examination, study the condition of the remained teeth and define the indications to treatment of partial edentation by artificial Bridge Denture depending on a clinical situation.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 mines.
4. Conclusion - 5 mines.

The contents of the lesson:

At partial edentation the integrity of a tooth row is broken and there are various morphological and functional changes. Thus the remained teeth are divided into functional and not functional groups. At definition of the indications to treatment of partial edentation by artificial Bridge Denture it is very important to estimate the condition of teeth limiting defects of tooth row as possible dental-parodontal support, and also condition of teeth antagonists. Besides clinical examination based on the indications paraclinical examination will also be carried out.

On the basis of the received results of examination the diagnosis is formulated and the indications to treatment of partial edentation by artificial Bridge Denture in view of the clinical situation are defined. During lesson the questions on advantages and disadvantages of artificial Bridge Denture are examined.

Checking questions:

1. Examination of tooth arches at the patients with partial edentation.
2. Examination of teeth chosen as a support for artificial Bridge Denture.
3. Characteristic of the situation and degree of teeth implantation in arch.
4. Examination of alveolar process at the patients with partial edentation.
5. Classification of alveolar process by the form and width.
6. Classification of defects of tooth arches by quantity of absent teeth.
7. Examination of a mucousa of the oral cavity at the patients with partial edentation.
8. Kinds of clinical situations at partial edentation.
9. Variety of tooth artificial denture used at treatment of partial edentation.
10. Principles of a choice of a design of an artificial Bridge Denture at partial edentation.
11. Artificial Bridge Denture. Components.
12. Classification of artificial Bridge Denture.
13.Advantages and disadvantages of artificial Bridge Denture.

Independent work of the students:

The students write the abstract on the theme: “Characteristic of para-clinical methods of examination at partial edentation.”

Methodical elaboration № 4.

Theme: ***Indications and contraindications to prosthetic treatment of partial edentation with Fixed Bridge Denturse.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about indications and contraindications to prosthetic treatment of partial edentation with Bridge Denturse.
To the students are demonstrated patients with clinical situations where the artificial Bridge Denturesare indicated or contraindicated.
Practically students take part in reception of the patients at the steps of prosthetic treatment with artificial Bridge Denturse, determine the indications to this kind of treatment.

The plan of the lesson:

1. Interrogation of the students – 20 min.
2. Demonstration of the thematic patient – 20 min.
3. Reception of the patients – 145 min.
4. Conclusion – 5 min.

Contents of the lesson:

The planning of an artificial Bridge Denture will be carried out after careful clinical and paraclinical examination of the patient. Thus it is necessary to pay attention to size and topography of defect of a tooth row, condition of teeth limiting defect of a tooth row, condition of toothless alveolar process, kind of bite, occlusal relationships etc. Requirements to the support teeth play the special role. Their clinical crowns should be of average height. Also is defined the condition of tissues of the periodontium, qualitative endodontic treatment, and also the reserve forces of periodontium of support teeth are taken into account.

Absolute contra-indications to application of artificial Bridge Denture are:

- large extent defects of tooth row,
- children's age, when there is a growth of the jaws,
- terminal defects, malignant formations etc.

Relative contra-indications are:

- the defects of tooth row limited to support teeth with low clinical crowns, having a small stock of reserve forces of periodontium etc.

Checking questions:

1. Indications to treatment of partial edentation with artificial Bridge Denture.
2. Indications to application of artificial Bridge Denture at frontal edentation.
3. Indications to application of artificial Bridge Denture at lateral edentation.
4. Indications to application of artificial Bridge Denture at frontal-lateral edentation.
5. Indications to treatment of partial edentation with circular artificial Bridge Denture.
6. Absolute contra-indications to treatment of partial edentation with artificial Bridge Denture.
7. Relative contra-indications to treatment of partial edentation with artificial Bridge Denture.
8. Reserve forces of the periodontium and their importance at planning of artificial Bridge Denture.
9. Reasons causing decrease of reserve forces of periodontium.
10.Parodontogramm and its importance at planning of an artificial Bridge Denture treatment.

Independent work of the students.

The students write the abstract on the theme: "The Indications and contra-indications to prosthetic treatment of partial edentation with Bridge Denture".

Methodical elaboration № 5.

Theme: ***Principles of choosing and inclusion of support teeth in Bridge Denturse. Teeth preparation. Getting impressions.***

Place of the lesson: clinic.
The purpose of lesson: the students materialize knowledge about choosing teeth as support elements of artificial Bridge Denture, their preparation and taking impressions at manufacturing Bridge Denturse.
To the students are demonstrated technique of support teeth preparation at manufacturing Bridge Denturse, impression materials and stages of getting impressions.
Practically students participate in reception of patients, planning Bridge Denturse, preparation of support teeth and getting impressions at prosthetic treatment with Bridge Denturse.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Importance of tecnique of teeth preparation depends on the type of support elements of Bridge Denturesand knowledge about properties of various kinds of impression materials and stages of getting impressions.

The quality of prosthetic treatment with artificial dentures in many cases depends on correct choice of support teeth. That is why it is necessary to carry out careful clinical and paraclinical examination of patients. The mathematical argumentation of support teeth choosing at prosthetic treatment with Bridge Dentures has disadvantage, because condition of parodontal tissues is not taken into account.

The biofunctional argumentation of support teeth choosing takes into consideration condition of reserve periodontal forces, which at different pathological condition of periodontium decrease, that fact is revealed at parodontogramm by Kurleandschi.

Preparation of support teeth is objective necessity caused by anatomic shape of a tooth crown and requirements to support elements of Bridge Denture. Peculiarities of preparation of support teeth under Bridge Denture are:

1. Preparation of support teeth is made taking into account the kind of micro artificial prosthesis, as support element of Bridge Denture;
2. Creation of parallelism between support teeth crowns.

After support teeth preparation impressions are taken and protective measures are carried out.

Checking questions:

1. Principles of choosing support teeth as support elements of Bridge Denturse.
2. Mathematical argumentation of support teeth choosing at Bridge Denture planning.
3. Biofunctional argumentation of support teeth choosing at Bridge Denture planning.
4. Odontoparodontogramm by Kurleandschi.
5. Choosing support teeth at Bridge Denture planning at absence of incisors of the upper jaw.
6. Indications and contra-indications to treatment of partial edentation with Bridge Denture.
7. Method of support teeth preparation at Bridge Denture manufacturing.
8. Possible complications appeared at getting impressions and preventive steps of their appearing.
9. Measures of protection of prepared teeth dentine surface.
10. Getting impressions at Bridge Denturesmanufacturing.
11. Possible complications appeared at getting impressions and prevention of them

Independent work of the students.

The students write the abstract on the theme: “Preparation of support teeth under Bridge Denture”.

Methodical elaboration № 6.

Theme: ***Definition of Central Occlusion or Central Jaws Relationships at the patients with partial edentation.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about occlusion, its variants, types of physiological occlusion, and elements of central occlusion, clinical situations and methods of definition of central occlusion or central jaws relationships at partial edentation.
To the students are demonstrated the clinical situations at partial edentation depending on complexity of definition of central occlusion, stages of definition of central occlusion.
Practically students participate in reception of the patients and definition of central occlusion depending on clinical situation at partial edentation.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Manufacturing of every tooth artificial denture (prosthesis) provides fixing models in articulator in central occlusion position. Therefore, in some clinical situations at partial edentation, when the models cannot be compared in central occlusion there is a necessity of definition of central occlusion or central intermaxillar relationships. In view of complexity of central occlusion definition there are three clinical situations of partial edentation:
a) First clinical situation includes tooth arches with stable occlusion due to presence of teeth on the upper and lower jaws between which there are contacts both in frontal and lateral areas and the models can be easily compared in position of central occlusion. That is why at this clinical situation central occlusion it is not determined.
b) Second clinical situation includes tooth arches with presence of instable occlusion at one or several pairs of teeth antagonists, but they are located in such a way, that the models without special adaptations cannot be compared in central occlusion. Thus it is determined only neutral jaws relationships, because height of occlusion is present.
c) Third clinical situation - absence of occlusion, absence of occlusal contacts between teeth of the upper and lower teeth and absence of height of occlusion. In this case first of all height of occlusion is determined, and then neutral jaws relationships. Height of the central occlusion or height of occlusion can be determined by the following methods:
- anatomic;
- antropometric;
- anatomophysiological.

Checking questions:

1. Definition "Occlusion".
2. Definition ”Central occlusion”. Two fundamental elements of central occlusion.
3. Central occlusion. Characteristic.
4. Frontal occlusion. Characteristic.
5. Distal occlusion. Characteristic.
6. Lateral occlusion. Characteristic.
7. Enumerate signs of central occlusion at orthognatic type of occlusion.
8. Definition “Height of occlusion".
9. Characteristic of relative physiological rest position of the lower jaw by V.Burlui.
10. Methods of definition of neutral position of the lower jaw.
11. Methods of definition of height of occlusion.
12. Methods of definition of interjaws relationships at absence of occlusion.
13. Methods of fixing central occlusion or central jaws relationships.

Independent work of the students.

The students write the abstract on the theme: ”Clinical situations at partial edentation depending on complexity of definition of central occlusion or central jaws relationships”.

Methodical elaboration № 7.

Theme: ***Preparation of support elements of Soldering (from two parts) Bridge Denture. Getting impressions.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about the requirements to support elements of soldering Bridge Denturse, their preparation and getting impressions.
To the students are demonstrated the support elements used in soldering (from two parts) Bridge Denturse, stages of their preparation and getting impressions.
Practically students participate in reception of the patients, preparation of support elements of soldering Bridge Denturesand getting impressions.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

One of the clinical stages of prosthetic treatment with soldering Bridge Denturesis preparation of support elements. More often as support elements are applied metal swage crowns. At stage of their preparation in the oral cavity are checked requirements to them as to micro artificial prosthesis, presence of parallelism between crowns. After crowns preparation, if it is necessary the central occlusion or the central jaws relationships are determined, and then impressions together with swage crowns on the support teeth are taken. On the received impressions in the laboratory are received models and modelling pontic of soldering Bridge Denture is made.

Checking questions:

1. Requirements to micro prosthesis used as support elements of soldering Bridge Denture.
2.Definition of character of relationships between support metal swage crowns and neighbouring teeth and teeth antagonists.
3. Definition of character of relationships between support metal swage crowns and support teeth in cervical tooth area and area of marginal periodontium.
4. Tactic of the doctor in case of not correspondence of support metal swage crowns to their
5. Technique of testing metal swage crowns as base of combined metal-acryl crowns.
6. The requirements to models, received for modelling pontic of soldering Bridge Denture.
7. Technique of testing swage crowns as support elements of soldering Bridge Denture.
8. Necessity of making testing soldering Bridge Denture. Stages.
9. Necessity of making final testing soldering Bridge Denture.

Independent work of the students.

The students write the abstract on the theme:" The requirements to support elements of soldering Bridge Denture".

Methodical elaboration № 8.

Theme: ***Treatment of partial edentation with console (canteliever) Bridge Denturse. Indications to console Bridge Denturesmanufacturing. Stages of their manufacturing. Their advantages and disadvantages.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about indications and contraindications to prosthetic treatment with console Bridge Denturse, their advantages and disadvantages.
To the students are demonstrated the types of console Bridge Denturse, clinical situations at which they are indicated, steps of their manufacturing, their advantages and disadvantages.
Practically students take part in reception of the patients, planning the construction of console Bridge Denturestaking into account clinical situation.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Console Bridge Dentureshave point of support only on the one side and are indicated at absence of one tooth only in frontal area of tooth arches. As support the teeth with healthy periodontium tissues are taken. At absence of two teeth and at terminal defects such artificial prosthesis conducts to functional overloading of the support teeth and are contra-indicated. The stages of console Bridge Denturesmanufacturing depend on their constructional particularities (soldering, cast, combined etc.).

Control questions:

1. Characteristic of console Bridge Denturse.
2. Indications and contra-indications to console Bridge Denturesmanufacturing.
3. Advantages and disadvantages of console Bridge Denturse.
4. Classifications of console Bridge Denturses.
5. Stages of console Bridge Denturesmanufacturing.
6. Principles of support teeth choosing at planning console Bridge Denturse.
7. Biomechanics of console Bridge Denturse.
8. Technique of testing console Bridge Denturesin the oral cavity and requirements to them.
9. Technique of final preparation and fixation of console Bridge Denturse.
10. Possible complications at treatment of partial edentation with console Bridge Denturse.

Independent work of the students.

The students write the abstract on the theme: “Indications to prosthetic treatment of partial edentation with console Bridge Denturse”.

Methodical elaboration № 9.

Theme: ***Prosthetic treatment of partial edentation with metal Cast Bridge Denturse. Indications. Support teeth preparation and getting impressions.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about indications and contraindications to prosthetic treatment with metal cast Bridge Denturse, their advantages and disadvantages, planning of their construction, peculiarities of support teeth preparation and taking impressions.
To the students are demonstrated the clinical situations at which cast Bridge Denturesare indicated, steps of their manufacturing, peculiarities of support teeth preparation.
Practically students take part in reception of the patients, planning the construction of cast Bridge Denturse, support teeth preparation and taking impressions.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Soldering Bridge Dentureshave a number of disadvantages, which result in their replacement by cast Bridge Denturse. Advantages of Cast Bridge Denturesare their high durability, opportunity of creation of occlusal surface both support elements and intermediate part more exactly, that makes them more effective in the functional attitude (relation). Artificial crowns in Cast Bridge Denture have tight contact in cervical area and precisely restore the anatomic form of a tooth crown.

Preparation of the teeth will be carried out in view of peculiarities of microartificial prosthesis which are basic part of Bridge Denture and with creation of parallelism between support teeth. Preparation of support teeth under cast crowns is deeper (thickness of cast crown – 0,3- 0,5мм), form of abutment – truncated cone. Thus vertical surfaces of the teeth are grinded at the angle from 2 to 10 degrees to occlusal surface. In cervical area teeth are prepared: a) with bevel which width is equal to 0,5 mm, b) without bevel or c) their combination.

After teeth preparation is taken two-layer impression, and at presence of bevel before taking impression we will carry out gingival retraction. After taking impression we will take protective measures of the teeth with alive pulp.

Checking questions:

1. Characteristic of cast Bridge Denturse.
2. Indications to prosthetic treatment of partial edentation with cast Bridge Denturse.
3.Contraindications to prosthetic treatment of partial edentation with cast Bridge Denturse.
4. Alloys used for cast Bridge Denturesmanufacturing.
5. Principles of support teeth preparation in cast Bridge Denturesmanufacturing.
6. Types of anaesthesia used at support teeth preparation.
7. Peculiarities of support teeth preparation in the cervical tooth area.
8. Possible complications appeared during and after support teeth preparation.
9. Protective steps after support teeth preparation.
10.Particularities of taking impressions in cast Bridge Denturesmanufacturing. Requirements to them.

Independent work of the students.

The students write the abstract on the theme: “Indications to prosthetic treatment of partial edentation with cast Bridge Denturse”.

Methodical elaboration № 10.

Theme: ***Testing metal Cast Bridge Denturse.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about requirements to cast Bridge Denturse, stages of their testing in the oral cavity.
To the students are demonstrated cast Bridge Denturesat stages of their testing.
Practically students take part in reception of the patients, testing quality of cast Bridge Dentures and their testing in the oral cavity.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Before testing cast Bridge Denture in the oral cavity corrrespondans to his requirements is checked. Testing acst Bridge Denture is important clinical step, because during this step can be revealed mistakes made on previous stages. During this testing will be controled:

1. the way of introdusing cast BD on support teeth
2. testing correlationships between support crowns and supprt teeth and neighboring teeth
3. testing correlationships between pontic of BD and alveolar process
4. testing correlationships between BD and teeth antagonists

Checking questions:

1. Stages Cast Bridge Denture manufacturing.
2. Necessity of stage of testing Cast Bridge Denture.
3. Requirements to Cast Bridge Denture.
4. Consequients of testing Cast Bridge Denture.
5. Difficulties of introducing Cast Bridge Denture on support teeth>
a) technickes' mistakes
b) doctor's mistakes
6. Methods of elimination of mistakes appeared at difficult introducing cast Bridge Denture on support teeth.
7. Technique of testing correlationships between:
a) support elements with support teeth, with neighboring teeth
b) pontic of Bridge Denture with alveolar process
c) cast Bridge Denture and teeth antagonists

Independent work of the students.

The students write the abstract on the theme: "Requirements to cast Bridge Denturse".

Methodical elaboration № 11.

Theme: ***Final testing and fixing Bridge Dentures.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize received knowledge about last stage of prosthetic treatment of partial edentation with Bridge Dentures – their final testing and fixing.
To the students are demonstrated sequence of final testing and fixing Bridge Dentures.
Practically students take part in reception of the patients, final testing and fixing Bridge Dentures.

The plan of lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Final testing Bridge Denture is made for checking the same criteria as at privious stage. If Bridge Denture corresponds to all requirements it can be fixed on the support teeth temporaly or permanently. Temporal fixation is indicated when it is necessary to make some specifications (absence of some inflammatory proceses from the pulp of prepared teeth, character of occlusion etc.) within period of adaptation – 1-2 weeks. Permanent fixation of Bridge Denture is very important and responsible stage when it is very important to respect special sequence of operations. Support elements are disinfected, degreased and dried. Support teeth are also disinfected, degreased and dried, then they are isolated and Bridge Denture is placed on the support teeth. Fixing material is prepared very attentively and introduced in the artificial crowns. Bridge Denture with fixation material is introduced on support teeth and the patient is asked to close dental arches in position of central occlusion. After hardening fixation material all his surpluses are removed and the patient is recommended not to eat and not drink for two hours.

Checking questions:

1. Explain necessity of final testing of Bridge Denture.
2. Sequence of realization of final testing of Bridge Denture.
3. Requirements checked at the stage of final testing of Bridge Denture.
4. Indications to temporal fixing of Bridge Denture.
5. Materials used for temporary fixing of Bridge Denture.
6. Indications to permanent fixing of Bridge Denture.
7. Materials used for permanent fixing of Bridge Denture.
8. Preparation of support elements for fixing Bridge Denture.
9. Preparation of support teeth for fixing Bridge Denture.
10. Advices and recommendations to the patient after fixing Bridge Denture.

Independent work of the students.

The students write the abstract on the theme:”Steps of final testing and fixing Bridge Dentures”.

Methodical elaboration № 12.

Theme: ***Prosthetic treatment of partial edentation with nonmetal (plastic, ceramic, composite) Bridge Denturse. Indications to these types of Bridge Dentures. Clinical-laboratory stages of their manufacturing. Advantages and disadvantages.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about indications and contraindications to prosthetic treatment of partial edentation with plastic, ceramic and composite Bridge Denturse, stages of their manufacturing, advantages and disadvantages.
To the students are demonstrated the clinical situations of partial edentation in which the non-metal Bridge Denturesare indicated, peculiarities of stages of different types of non-metal Bridge Denturesmanufacturing.
Practically students take part in reception of the patients with partial edentation when non-metal Bridge Denturesare indicated.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

The non metal Bridge Dentureshave advantages over metal, having good aesthetic properties. Plastic Bridge Denturesare made during one laboratory stage, but their main disadvantage is the low durability, therefore they are indicated at small (1-2 teeth) defects of tooth row in frontal area. They also are used as temporary artificial dentures. Support teeth are prepared, as well as under plastic crowns with obligatory parallelism between them.

Composite artificial Bridge Denturesare stronger, than plastic, indifferent to soft tissues and more aesthetic because of possibility to create colour of natural teeth. Indications are the same as for plastic artificial Bridge Denturse. The process of polymerization depends on the kind of composite.

Porcelain artificial Bridge Denturesare indicated at absence of one frontal tooth, at parallelism of support teeth, their sufficient height and small incisor overlapping. Preparation of teeth will be carried out as under porcelain crowns with creation of parallelism between them. Laboratory stages are the same as at manufacturing of porcelain crowns.

Checking questions:

1. Indications and contra-indications to application of plastic Bridge Denturse.
2. Stages of plastic Bridge Dentures manufacturing.
3. Technique of support teeth preparation under plastic Bridge Denture.
4. Methods of getting impressions at plastic Bridge Denture manufacturing. Used materials.
5. Ttesting and fixation of plastic Bridge Denture.
6. Indications and contra-indications to treatment of partial edentation with composite Bridge Denturse. Kinds of composites.
7. Stages of composite Bridge Dentures manufacturing. Their advantages.
8. Indications and contra-indications to treatment of partial edentation with ceramic Bridge Dentures. Kinds of ceramic.
9. Stages of ceramic Bridge Dentures manufacturing.
10. Technique of support teeth preparation under ceramic Bridge Dentures.
11. Methods of getting impressions at manufacturing of ceramic Bridge Dentures.
12. Preparation and fixation of ceramic Bridge Denture. Possible complications. Preventive steps.
13. Advantages and disadvantages of ceramic Bridge Denturse.

Independent work of the students.

The students write the abstract on the theme:”Indications to prosthetic treatment with non-metal crowns”.

Methodical elaboration № 13.

Theme: ***Treatment of partial edentation with combined metal-acryl and metal-composite Bridge Dentures. The indications. Preparation of support teeth. Getting impressions.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about indications and contraindications to prosthetic treatment of partial edentation with metal-acryl (on the base of metal swage or cast crowns), metal-composite Bridge Denturse, stages of their manufacturing, particularities of teeth preparation and getting impressions.
To the students are demonstrated the clinical situations of partial edentation when metal-acryl, metal-composite Bridge Denturesare indicated, peculiarities of stages of these type Bridge Denturesmanufacturing.
Practically students take part in reception of the patients with these types of Bridge Denturse.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Combined Bridge Denturesare used to improve esthetic aspect of the dental arches after prostetic treatment. They can have metal swage or cast base. Combined Bridge Dentureswith metal swage base can be two types: a) acryl will be placed only on the pontic of Bridge Denture; b) acryl will cover both pontic of Bridge Denture and support elements that can be presented by artificial combine crown by Belkin, Sverdlov, Postolachi etc. Their stages of manufacturing are the same as at soldering Bridge Denture manufacturing.

Combined Bridge Dentureson the base of cast crowns, due to their advantages, are more often indicated in comparisson with combined Bridge Dentureson the base of swage artificial crowns. Preparation of support teeth are made in the same way as under metal-acryl artificial crowns on the base of cast one with creation of paralelism between every prepared support teeth.

Metal-composite Bridge Denturesare indicated at the same clinical situations as metal-acryl ones. In the laboratory the composite layer by layer is applied.

After preparation prepared teeth are covered with protective lacquer.

Checking questions:

1. Variants of combined metal-acryl Bridge Dentures manufacturing.
2. Indications and contraindications to prosthetic treatment of partial edentation with metal-acryl Bridge Dentures on soldering metal base.
3. Stages of combined Bridge Dentures on soldering metal base manufacturing.
4. Advantages and disadvantages of metal-acrylic Bridge Dentureon soldering metal base.
5. Indications and contraindications to prosthetic treatment of partial edentation with metal-acryl Bridge Dentures on cast metal base.
6. Stages of manufacturing metal-acryl Bridge Dentures on the base of cast metal base.
7. Pecularities of support teeth preparation under metal-acryl Bridge Denture on cast metal base.
8. Getting impressions at manufacturing metal-acrylic Bridge Denture on cast metal base.
9. Testing metal frame of metal-acryl Bridge Denture. Determination of colour of acryl.
10. Indications and contraindications to metal-composite Bridge Dentures manufacturing.
11. Stages of metal-composite Bridge Dentures manufacturing.

Independent work of the students.

The students write the abstract on the theme: “Indications to treatment of partial edentation with metal-acryl Bridge Dentures".

Methodical elaboration № 14.

Theme: ***Testing and fixing of metal-acryl and metal-composite Bridge Dentures.***
Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about testing and fixing metal-acryl and metal-composite Bridge Denturse.
To the students are demonstrated thematic patients at the stage of final testing metal-acryl and metal-composite Bridge Denturesin the oral cavity.
Practically students take part in reception of the patients when these Bridge Denturesare indicated.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of thematic patients, different types of metal-acryl Bridge Dentures- 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Metal frame of metal-acryl or metal-composite Bridge Denture during their testing in the oral cavity must be introduced without any obstacles. For correction of inner surface of artificial crowns is used occlusal correction spray or second layer of double impression materials. Crowns edges must envelop sufficiently abutments in cervical tooth area. Between metal frame of artificial crowns and teeth antagonists must be present the space sufficient for physiognomic material, but between pontic of Bridge Denture and alveolar process must be created free space that provides hygiene of oral cavity. At the end of metal frame testing the colour of acryl or composite is determined.

Before final testing metal-acryl or metal-composite Bridge Denture the quality of the denture is determined.

At testing metal-acryl or metal-composite Bridge Denture in the oral cavity are determined: a) relationships between marginal periodontium of support teeth and support elements; b) relationships between support elements of Bridge Denture and neighbouring teeth and teeth antagonists; c) relationships between occlusal surface of Bridge Denture and teeth antagonists in central and functional occlusion. For necessary correction the occlusal paper, occlusal spray are used; d) correspondance the colour of acryl or composite to the colour of natural remained teeth in the oral cavity.

After final testing, in case of necessity, polishing of the Bridge Denture will be repeated and clinical stages will be continued with fixation of Bridge Denture in the oral cavity according to known method.

Checking questions:

1. Testing the metal frame of metal-acryl or metal-composite Bridge Denture in the oral cavity.
2. Methods of correction of metal frame of metal-acryl or metal-composite Bridge Denture. Used instruments and materials.
3. Determination of the colour of physiognomic material.
4. Requirements to ready metal-acryl or metal-composite Bridge Denture.
5. Final testing metal-acryl or metal-composite Bridge Denture in the oral cavity.
6. Methods of correction of metal-acryl or metal-composite Bridge Denture. Used instruments and materials.
7. Advantages of metal-acryl or metal-composite Bridge Denture.
8. Disadvantages of metal-acryl or metal-composite Bridge Denture.
9. Fixation of metal-acryl or metal-composite Bridge Denturesin the oral cavity. Used materials.
10. Possible complications at prosthetic treatment of partial edentation with metal-acryl or metal-composite Bridge Dentures.

Independent work of the students.

The students write the abstract on the theme: “Testing and correction of metal-acryl Bridge Dentures.

Methodical elaboration № 15.

Theme: ***Treatment of partial edentation with combined metal fused ceramic (m/c). Bridge Denturse. The indications. Preparation of support teeth. Getting impressions.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about indications and contraindications to prosthetic treatment of partial edentation with m/c Bridge Denturse, stages of their manufacturing, particularities of support teeth preparation and getting impressions from prosthetic field.
To the students are demonstrated the clinical situations of partial edentation when m/c Bridge Denturesare indicated, peculiarities of stages of these Bridge Denturesmanufacturing, peculiarities of support teeth preparation and getting impressions, protective measures after support teeth preparation.
Practically the students take part in reception of the patients with partial edentation when these Bridge Denturesare indicated, stages of m/c Bridge Denture manufacturing, support teeth preparation, getting impressions, protective steps taking, registering all made work in their diaries.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Disadvantages of metal-acryl or metal-composite Bridge Denturesbecause of acryl using that has allergic properties, toxic action on the biological tissues, insufficient connection between metal and acryl or composite, instability of the colour in the course of time etc. make using metal-ceramic Bridge Denturesmore useful – they are more durable, indifferent to biologic tissues etc. Indications to metal-ceramic Bridge Denturesusing depend on possibility of metal-ceramic crowns using, possibility of parallelism creation between support teeth. Support teeth will be prepared as well as under metal-ceramic crowns with creation of parallelism between them. For getting impressions are used double impression materials.

Checking questions:

1. Characteristic of metal-ceramic Bridge Denture.
2. Indications to treatment of partial adentia with metal-ceramic Bridge Dentures.
3. Contraindications to treatment of partial adentia with metal-ceramic Bridge Dentures.
4. Advantages of metal-ceramic Bridge Dentures.
5. Disadvantages of metal-ceramic Bridge Dentures.
6. Stages of metal-ceramic Bridge Dentures manufacturing.
7. Particularities of support teeth preparation at metal-ceramic Bridge Dentures manufacturing.
8. Types of finishing line in cervical area at preparation of support teeth under metal-ceramic Bridge Dentures.
9. Possible complications at preparation of support teeth under metal-ceramic Bridge Dentures and their prevention.
10. Methods of gingival retraction before getting impressions at metal-ceramic Bridge Dentures manufacturing.
11. Particularities of getting impressions at metal-ceramic Bridge Dentures manufacturing. Used materials.
12. Protective steps after vital support teeth preparation.

Independent work of the students.

The students write the abstract on the theme: “Protective steps of vital teeth after their preparation under metal-ceramic crowns”.

Methodical elaboration № 16.

Theme: ***Testing and fixing of m/c Bridge Dentures.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about requirements to metal-ceramic Bridge Denturse, stages of their testing and fixing.
To the students are demonstrated thematic patients at stages of testing and fixing metal-ceramic Bridge Denturesin the oral cavity.
Practically students take part in reception of the patients, testing and fixing metal-ceramic Bridge Denturesin the oral cavity.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

Attention is paid to insertion of metal part of ceramic Bridge Denture on the support teeth that must be effectuated without any obstacles and adopted in the cervical area very preciously. Between metal part and teeth antagonists must be space equal approximately to 1,5 – 2,0 mm necessary for aesthetic part (ceramic) of Bridge Denture.

At final testing of metal-ceramic Bridge Denture are checked insertion of Bridge Denture on the support teeth, restoration of contact points between support elements of Bridge Denture and neighbouring teeth, colour of ceramic, correlation between pontic of Bridge Denture and alveolar process, interocclusal relationships between occlusal surface of Bridge Denture and teeth antagonists in central and functional occlusion.

Finishing of metal-ceramic Bridge Denture continue with glazing in dental laboratory and fixing of the denture in the oral cavity.

Checking questions:

1. Testing of metal part of metal-ceramic Bridge Denture in the oral cavity. Requirements.
2. Enumerate clinical situations when it is not possible to insert metal part of metal-ceramic Bridge Denture on the support teeth. Methods of their correction.
3. Verification of correlationships of edges of m/c crowns with finishing line.
4. Verification of interocclusal relationships between metal part of metal-ceramic Bridge Denture and teeth antagonists.
5. Determination of colour of ceramic in metal-ceramic Bridge Denture manufacturing.
6. Testing of metal-ceramic Bridge Denture in the oral cavity. Requirements.
7. Individualization of morpho-functional relief of metal-ceramic Bridge Denture. Technique of realisation.
8. Individualisation of colour of ceramic of metal-ceramic Bridge Denture.
9. Final testing and fixing of metal-ceramic Bridge Denture in the oral cavity. Requirements to him.
10. Preparation and fixation of ceramic fused to metal Bridge Denture.
11. Possible complications after fixation of metal-ceramic Bridge Denture in the oral cavity and their preventive steps.

Independent work of the students.

The students write the abstract on the theme: “Advantages and disadvantages of metal-ceramic Bridge Dentures”.

Methodical elaboration № 17.

Theme: ***The biomechanics of Bridge Dentures. Possible (probable) complications and their prevention at prosthetic treatment with Bridge Dentures.***

Place of the lesson: clinic.
The purpose of the lesson: the students materialize knowledge about biomechanics of Bridge Denturse, possible complications at prosthetic treatment with Bridge Denturesand their preventive steps.
To the students are demonstrated thematic patients at different stages of prosthetic treatment with different types of Bridge Denturestaking into consideration laws of biomechanics.
Practically students take part in reception of the patients, discuss questions connected with biomechanics, fixation and stabilization of Bridge Denturse, possible complications and their prevention.

The plan of the lesson:

1. Interrogation of the students - 20 min.
2. Demonstration of the thematic patient - 20 min.
3. Reception of the patients - 145 min.
4. Conclusion - 5 min.

Contents of the lesson:

At prosthetic treatment with Bridge Denturesthere is an obligatory condition – to know the roles of biomechanics. Biomechanics of Bridge Denturesis analysed according to biomechanics of the mandible. The Bridge Denture is acted by the forces of: compression, traction, horizontal forces. Action of these forces depends on mandible movements, food consistence and geometrical construction of Bridge Denture and places of its fixation. At planning Bridge Denturesit is necessary to obtain biomechanical equilibrium in complex: **prosthesis – prosthetic field**. Fixation and stabilization of Bridge Dentures– is their resistance to different forces and it is determined by lines that unite support teeth and depend on the topography of dental row defect. At stages of prosthetic treatment with Bridge Dentures appearance of different complications is possible, that is why it is very important to know protective steps.

Checking questions:

1. Dental-parodontal support. Characteristic and practical importance at Bridge Dentures construction planning.
2. Resistant indexes of periodontium by Haber.
3. Changes of functional condition of teeth depending on the degree of alveolar process atrophy by Kurleandscky.
4. Parodontogram by Kurleandscky and her using at prosthetic treatment of partial edentation.
5. Reserve forces of periodontium. Practical importance.
6. Criteria of determination of functional condition of support teeth.
7. Biomechanical principle at prosthetic treatment of partial edentation with Bridge Dentures.
8. Biofunctional principle at prosthetic treatment of partial edentation with Bridge Dentures.
9. Preventive principle at prosthetic treatment of partial edentation with Bridge Dentures.
10. Characteristic of action of forces of compression, traction and horizontal forces at the surface of Bridge Denture.
11. Characteristic of horisontal forces which act on Bridge Denture.
12. Symptoms of overloading support teeth after fixation of Bridge Denture.
13. Possible complications at stages of prosthetic treatment with Bridge Dentures and their prevention.

Independent work of the students.

The students write the abstract on the theme: “Biomechanical principle at prosthetic treatment with Bridge Dentures.”

The basic bibliography

1. Henry V. Murray, Troy B. Sluder “Fixed Restorative Techniques”
2. Head and Neck anatomy. Section 2
3. Impession materials
4. D.L. Ghergic, C.F. Andreescu „Clinical bases of oral rehabilitation”, Constanta, 2001.