**STATE UNIVERSITY OF MEDICINE AND PHARMACY**

**'NICOLAE TESTEMIȚANU'**

**FACULTY OF DENTISTRY**

**DEPARTMENT OF ORAL AND MAXILLO-FACIAL SURGERY**

**AND ORAL IMPLANTOLOGY 'ARSENIE GUȚAN**

Teaching Guides

for Practical Works

For the discipline: ORAL IMPLANTOLOGY

Discipline type: Mandatory

Discipline code: S.08.O.075

Year IV, semester VIII

**Teaching Guide No. 1**

**(year IV, semester VIII)**

**Topic:** The history of the development of oral implantology.

**Location:** Clinical outpatient bases of the department.

**Purpose of the work:** To understand the history of the development of oral implantology, including in the Republic of Moldova**.**

**Form of instruction and duration:** seminar/practical work, 225 min**.**

**Control questions:**

1. The history of the development of oral implantology.
2. The role of oral implantology in dentistry.
3. The concept of osseointegration. The role of titanium in implantology.
4. The development of oral implantology in the Republic of Moldova.

Bibliography

1. Course materials
2. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
3. Sîrbu D. Biomateriale în reconstrucția crestelor alveolare mandibulare în tratamentul implantar, Chișinău: S.n., 2018.
4. Misch C.E. Contemporary Implant Dentistry. Third Edition, Mosby Elsvier, 2008.

**Teaching Guide No. 2**

**(year IV, semester VIII)**

**Topic:** Instruments and devices used in oral implantology. Types of implants and their components.

**Location:** Clinical outpatient bases of the department.

**Purpose of the work:** to master the instruments and devices used in oral implantology, the types of implants, and their components.

**Form of instruction and duration:** seminar and practical work, 225 min**.**

**Control questions:**

1. Basic and auxiliary instrumentation used in oral implantology.
2. Devices used in oral implantology and bone surgery.
3. Classification of implant types.
4. Alloys used in implant manufacturing, properties, advantages, and disadvantages.
5. Endosseous dental implants, classification, component parts.
6. Aspects of the macro-design of implants.
7. Types of implant surfaces. Characteristics, properties.
8. Types of implant connections. Properties, advantages, and disadvantages.

**Bibliography**

1. Course materials.
2. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
3. Sîrbu D. Biomateriale în reconstrucția crestelor alveolare mandibulare în tratamentul implantar, Chișinău: S.n., 2018.
4. Misch C.E. Contemporary Implant Dentistry. Third Edition, Mosby Elsvier, 2008.

**Teaching Guide No. 3**

**(year IV, semester VIII)**

**Topic:** Clinical and paraclinical examination of patients undergoing dental implant surgery.

**Location**: Clinical outpatient bases of the department.

**Purpose of the work:** To grasp the role of clinical and paraclinical examination in oral implantology in the context of planning implant-prosthetic rehabilitation.

**Form of instruction and duration:** seminar and practical work, 225 min.

**Control questions:**

1. Clinical examination in oral implantology.
2. Anatomical-topographical particularities of the jaws in an implant-prosthetic perspective.
3. Clinical-anatomical evaluation of the dental arches, the quantitative and qualitative offer of soft and hard tissues.
4. The role of paraclinical examination in implantology. Radiological examination methods.
5. Paraclinical assessment of peri-implant conditions.
6. Determining the crown-to-implant body ratio. Requirements for implant placement in relation to anatomical structures and biomechanical principles in implantology.
7. Planning of implant-prosthetic treatment. Type of implant-prosthetic constructions (FP classification according to Misch).

**Bibliography**

1. Course materials.
2. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
3. Sîrbu D. Biomateriale în reconstrucția crestelor alveolare mandibulare în tratamentul implantar, Chișinău: S.n., 2018.
4. Misch C.E. Contemporary Implant Dentistry. Third Edition, Mosby Elsvier, 2008.

**Teaching Guide No. 4**

**(year IV, semester VIII)**

**Topic:** Indications and contraindications in oral implantology. Osseointegration.

**Location:** Clinical outpatient bases of the department.

**Purpose of the work:** To understand the indications and contraindications for dental implant insertion, the concept of osseointegration.

**Form of instruction and duration:** seminar and practical work, 225 min.

**Control questions:**

1. Indications for dental implant insertion.
2. Contraindications for dental implant insertion.
3. Indications for pre-implant surgery interventions.
4. The concept of implant osseointegration.
5. The concept of peri-implant biological space. Role, components of the biological space, formation timelines.
6. Conventional method of inserting removable dental implants.
7. Requirements for flaps in oral implantology. Types of flaps. Indications.

**Bibliography**

1. Course materials.
2. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
3. Sîrbu D. Biomateriale în reconstrucția crestelor alveolare mandibulare în tratamentul implantar, Chișinău: S.n., 2018.
4. Misch C.E. Contemporary Implant Dentistry. Third Edition, Mosby Elsvier, 2008.

**Teaching Guide No. 5**

**(year IV, semester VIII)**

**Topic:** Methods of inserting dental implants.

**Location:** Clinical outpatient bases of the department.

**Purpose of the work:** To understand the conventional, post-extraction, and alternative techniques for inserting dental implants**.**

**Form of instruction and duration:** seminar and practical work, 225 min**.**

**Control questions:**

1. Inserting implants in one-stage and two-stage surgical procedures.
2. Concepts of primary and secondary stability of dental implants. Methods of assessment.
3. Classification of dental implant insertion in relation to post-extraction terms.
4. Requirements for post-extraction (type 1) implant insertion. Classification of sockets according to Khan and Ellian.
5. Technique of post-extraction implant insertion.
6. Early type 2 and 3 insertion of dental implants. Particularities, indications, advantages, and disadvantages.
7. Postoperative evaluation of tissue regeneration.
8. Complications during the healing period. Mucosal dehiscence (Tal H.'s classification) and peri-implant mucositis.

**Bibliography**

1. Course materials.
2. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
3. Sîrbu D. Biomateriale în reconstrucția crestelor alveolare mandibulare în tratamentul implantar, Chișinău: S.n., 2018.
4. Misch C.E. Contemporary Implant Dentistry. Third Edition, Mosby Elsvier, 2008.

**Teaching Guide No. 6**

**(year IV, semester VIII)**

**Topic:** Biomaterials used in oral implantology, their properties, and indications for use. Surgical techniques for guided bone regeneration of deficient alveolar ridges.

**Location:** Clinical outpatient bases of the department.

**Purpose of the work:** To acquire knowledge about the types and roles of biomaterials in oral implantology and their methods of use.

**Form of instruction and duration:** seminar and practical work, 225 min.

**Control questions:**

1. Classification of biomaterials used in oral implantology.
2. Requirements for biomaterials. Biocompatibility, osteoconductive properties, osteoinductive, and osteogenesis properties.
3. Surgical techniques for guided bone regeneration using allogenic, xenogenic, or synthetic biomaterials. Indications, advantages, and disadvantages.
4. Surgical techniques for guided bone regeneration using autogenous bone. Indications, advantages, and disadvantages.
5. Intraoral and extraoral donor sectors for harvesting autogenous bone. Properties, advantages, and disadvantages.
6. Alternative methods of dental implant insertion (the concept of all-on-6 and all-on-4).

**Bibliography**

1. Course materials.
2. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
3. Sîrbu D. Biomateriale în reconstrucția crestelor alveolare mandibulare în tratamentul implantar, Chișinău: S.n., 2018.
4. Misch C.E. Contemporary Implant Dentistry. Third Edition, Mosby Elsvier, 2008.

**Teaching Guide No. 7**

**(year IV, semester VIII)**

**Topic:** Implant-prosthetic rehabilitation of patients in the posterior sectors of the maxilla.

**Location:** Clinical outpatient bases of the department.

**Purpose of the work:** To master the methods of elevating the maxillary sinus floor through crestal and lateral access.

**Form of instruction and duration:** seminar and practical work, 225 min.

**Control questions:**

1. Anatomy of the maxillary sinuses. Classification of sub-sinus bone supply.
2. Indications and contraindications for sinus lifting intervention.
3. Techniques for elevating the maxillary sinus floor through crestal access. Indications, contraindications, advantages, and disadvantages.
4. Techniques for elevating the maxillary sinus floor through lateral access. Indications, contraindications, advantages, and disadvantages.
5. Management of patients undergoing sinus lifting interventions.
6. Errors and complications in sinus lifting interventions.

**Bibliography**

1. Course materials.
2. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
3. Sîrbu D. Biomateriale în reconstrucția crestelor alveolare mandibulare în tratamentul implantar, Chișinău: S.n., 2018.
4. Misch C.E. Contemporary Implant Dentistry. Third Edition, Mosby Elsvier, 2008.

**Teaching Guide No. 8**

**(year IV, semester VIII)**

**Topic:** Accidents and complications in oral implantology.

**Location:** Clinical outpatient bases of the department.

**Purpose of the work:** To understand the accidents and complications that can occur in implant-prosthetic rehabilitation.

**Form of instruction and duration:** seminar and practical work, 225 min.

**Control questions:**

1. Preoperative accidents and complications. Classification. Prevention.
2. Intraoperative accidents and complications.
3. Concepts of mechanical and biological complications.
4. Postoperative wound dehiscence.
5. Mucosal dehiscences. Classification, prevention, and treatment.
6. The role of guided surgery in implantology.
7. Types of surgical guides used in implantology.

**Bibliography**

1. Materialele cursurilor.
2. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
3. Sîrbu D. Biomateriale în reconstrucția crestelor alveolare mandibulare în tratamentul implantar, Chișinău: S.n., 2018.
4. Misch C.E. Contemporary Implant Dentistry. Third Edition, Mosby Elsvier, 2008.

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