

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ
БЕЛОРУССКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ
КАФЕДРА ХИРУРГИЧЕСКОЙ СТОМАТОЛОГИИ

**ХИРУРГИЧЕСКАЯ СТОМАТОЛОГИЯ
И ПРОПЕДЕВТИКА ХИРУРГИЧЕСКИХ ЗАБОЛЕВАНИЙ
ЧЕЛЮСТНО-ЛИЦЕВОЙ ОБЛАСТИ**

**ORAL SURGERY AND PROPAEDEUTIC
OF MAXILLOFACIAL SURGICAL DISEASES**

Практикум для студентов,
обучающихся по специальности «Стоматология»
в 5-м семестре

2-е издание



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LIST OF ABBREVIATIONS AND SYMBOLS

BP — blood pressure
HIV — human immunodeficiency virus
MAC — medical advisory commission
MS — maxillary sinus
CHD — coronary heart disease
CBCT — cone beam computed tomography
CT scan — computed tomography
DASH — drug anaphylactic shock
MREC — medical and rehabilitation expert commission
OPT — orthopantomography
AIDS — acquired immunodeficiency syndrome
EDTA — ethylenediaminetetraacetic acid
NMR CT — nuclear magnetic resonance computed tomography
ASA — American Association of Anaesthesiologists

TOPICS FOR STUDENTS' SCIENTIFIC WORK

1. Characteristics of local anesthetics permitted for use on the territory of the Republic of Belarus.
2. General anesthesia in maxillofacial surgery. Types of general anesthesia.
3. Types of nerve block (conduction) intraoral anesthesia (mandibular, torus, Akinozi–Vaziran, Go-Gates): indications, techniques, differences, equipment/tools for their implementation/conduction.
4. Possibilities of combining of different types of anesthesia to ensure anesthesia during surgery in maxillofacial region.
5. Local complications arising during tooth extraction.
6. Local complications arising after tooth extraction.
7. Specific features of the choice of local anesthetics in patients with somatic pathology.

Theme 1. DEONTOLOGY IN MAXILLOFACIAL SURGERY AND ORAL SURGERY. DENTAL SURGERY ROOM

Control questions on the topic:

1. Definition of the subject of oral surgery.
2. The history of the development of maxillofacial surgery and oral surgery.
3. Describe the main aims and tasks of the subject «oral surgery».
4. Describe the basic principles of the organization of oral surgery service in the Republic of Belarus.
5. Describe the staff standards of doctors dental surgeons, assistants and nurses in the surgical dental offices in health care institutions.
6. Name the number of rooms in the surgical dental offices in health care institutions.
7. Name the necessary equipment for the work in the surgical dental offices in health care institutions.
8. What are the norms of the square for the surgical dental offices in health care institutions?
9. What sanitary standards are approved for the organization of the work of surgical dental offices and maxillofacial surgery departments?
10. Name the chief regulatory documents that ensure the activities of dental surgeons and maxillofacial surgeons in outpatient and inpatients clinics.
11. Name the main duties of dental surgeons and maxillofacial surgeons.
12. What are the indicators for estimation of activity of dental surgeon in outpatient clinic?
13. What is the average time (in minutes) for admission per dental surgical patient in an outpatient clinic?

1. Write the name of the form for accounting and reporting documentation in accordance with the number.

№ 039/U-O _____

№ 037/U-06 _____

№ 043/u-06 _____

№ 069/u _____

№ 036/u _____

№ 028/u _____

№ 035/u _____

№ 088/u _____

№ 131/u-D _____

2. Indicators of the oral-surgeon's activity are calculated for a quarter (3 months), half a year (6 months), a year (12 months):

a) the total number of visits

b) operational activity = $\frac{\text{total number of surgical operations}}{\text{total number of visits}} \times 100 \%$

c) planned operational activity = $\frac{\text{total number of planned surgical operations}}{\text{total number of visits}} \times 100 \%$

Practical task. Calculate the operational activity, if it is known that the total number of visits per month was 500, the oral surgeon removed 400 permanent teeth, performed 35 emergency and 15 planned outpatient operations.

$$\text{operational activity} = \text{---} \times 100 \% =$$

Result:

3. Specify the groups of dispensary observation.

Dispensary observation groups		Healthy patients without any complaints of their state of health, without diagnosed acute, chronic diseases or dysfunctions of organs or organ systems, patients who have minor deviations in their health status (without a tendency for progression), without affecting the working capacity
		Practically healthy patients who have chronic diseases risk factors in anamnesis vitae, acute diseases that can lead to the chronization of acute diseases (including frequent or long-term illnesses — individuals who were often (6 or more times per year) or for a long time (more than 40 days per year in total) were ill with acute diseases; patients with chronic diseases in the remission stage without dysfunction of organs and body systems)
		Patients who need dynamic observation — with chronic diseases with dysfunctions of organs and body systems and / or with periodic exacerbations of chronic diseases
		Patients with a disability group who need dynamic observation

4. White the necessary blocks/rooms for organizing a surgical dental office in an outpatient clinic.

- 1) _____
- 2) _____
- 3) _____

5. Fill in the table with the missing information on dispensary dynamic observation of patients followed up by an oral surgeon.

Nosological form	Dispensary observation group	Observation frequency (number of visits per year)	Diagnostic procedures needed to monitor the patient's condition
The apex root resection, cystectomy operations			Radiological imaging (jaw radiography, orthopantomography (OPTG), computed tomography (CT))
Acute odontogenic osteomyelitis of the jaws			
Chronic odontogenic osteomyelitis of the jaws (K 10.2)	D (III)		
Chronic odontogenic and post-traumatic sinusitis (K 10.2)	D (II)		
	D (III)		
Chronic lymphadenitis			
Specific inflammatory processes in the maxillofacial region (actinomycosis B 37)		compensated: 2 times per year (6, 12 months)	Histological, cytological, microbiological examinations; radiological/Xray examination methods (radiography of the jaws, CT)
		subcompensated: 3 times per year (3, 6, 12 months)	

Medical consultation commission (MCC) — _____

Medical rehabilitation expert commission (MREC) — _____

Theme 2. PREPARATION OF THE HANDS OF THE DENTIST-SURGEON AND THE OPERATING FIELD. DISINFECTION AND STERILIZATION

Control questions on the topic of practical classes:

1. Give the definition of antimicrobial regime.
2. What 3 groups are antimicrobial activities divided into?
3. Give the definition of «microbial decontamination»
4. What groups are microbial decontamination antimicrobial activities, depending on the objects of the environment divided into?
5. Give the definition of sterilization activities? What does it include?
6. What is sterilized in medical institutions?
7. What are the stages of the sterilization technological process?
8. Describe the scheme of instruments preparation for sterilization in the surgical dental office in accordance with the latest orders of the Ministry of Health of the Republic of Belarus.
9. What are the methods of sterilization?
10. Give the definition of «disinfection».
11. Name the disinfectants permitted for use on the territory of the Republic of Belarus.
12. What is the frequency of cleaning in a surgical dental office??
13. Give the definition of antiseptics.
14. Which groups are antiseptics divided into depending on the agent that damages the microorganisms?
15. What is physical, mechanical, chemical, biological, mixed antiseptics?
16. List the basic requirements for medical antiseptics.
17. Name the groups of antiseptics.
18. Name the 3 categories of surgeon's hands antiseptics.
19. What is the aim of surgeon's hands antiseptics?
20. What method of antiseptic treatment of the surgeon's hands is currently used in a dental surgical office?
21. Describe the general scheme of preoperative antiseptics for patients.

1. Match the names and numbers of the normative documents regulating the work on the sanitary and anti-epidemic regime in health care institutions with «arrows».

Order No.165 of 11.25.2002	«On the revision of departmental regulations governing issues on the problem of human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS)»
Decree No. 107 of 10.28.2013	«Sanitary norms and rules "Requirements for the organization and conduction of sanitary and anti-epidemic measures aimed at preventing the occurrence and spread of viral hepatitis»
Order No. 351 of 12.16.1998	«Sanitary and epidemiological requirements for health organizations, provision of medical services, including cosmetology, as well as organization and conduction of sanitary and anti-epidemic measures for prevention of infectious diseases in health care institutions»
Decree No. 11 of 06.02.2013	«On carrying out disinfection and sterilization of health care institutions»

2. Specify sterilization regimes.

Oven	180 °C		150 min
Autoclave	120 °C		min
		2 atm. (0.2 Mpa)	min

3. Specify the correct technique of the surgeon's hands antisepsis according to the European standard EN-1500.



Rub one palm against the other palm with reciprocating movements.

Rub the back surface of the left hand with the right hand, then change the hands.

Connect the fingers of one hand in the interdigital spaces of the other hand, rub the inner surfaces of the fingers up and down.

Connect the fingers into a «lock». Use the back of the bent fingers to rub the palm of the other hand.

Cover the base of the thumb of the left hand between the thumb and index fingers of the right hand, perform rotational friction. Repeat it on the wrist. Repeat all the above manipulations with the second hand.

In a circular motion, rub the palm of the left hand with the tips of the fingers of the right hand, change the hands.

4. Describe the sequence of actions in case:

1) of contact of a biomaterial (blood) with the mucous membrane of the eyes:

a) _____

b) _____

2) of contact of a biomaterial (blood) with nasal mucosa:

a) _____

b) _____

3) contact of biomaterial (blood) with mucosa of the oral cavity:

a) _____

b) _____

4) of a cut:

a) _____

b) _____

c) _____

d) _____

e) _____

5) of needle pricking:

a) _____

b) _____

c) _____

d) _____

e) _____

6) some biomaterial gets on your clothes:

a) _____

b) _____

7) some biomaterial gets on your shoes:

a) _____

Theme 3. EXAMINATION OF PATIENTS WITH SURGICAL DISEASES OF THE MAXILLOFACIAL REGION AND NECK

Control questions on the topic of practical classes:

1. Complaints of patients with pathology of the maxillofacial region: clarification of the nature of pain: (constant or paroxysmal, acute or dull, spontaneous or associated with the influence of the stimulus, localized or radiating to other areas, duration); reconfiguration of the maxillofacial region: the time of its appearance, the dynamics.

2. Specific Features of the history of the disease (anamnesis morbi) in patients with pathology of the maxillofacial region, clarification of the patient's living and working conditions.

3. Specific Features and order of examination of the maxillofacial region.

4. Tools for examination of the maxillofacial region.

5. Physical methods of examining the patient.

6. Order of palpation of the soft tissues in the maxillofacial region. Bimanual palpation.

7. Rules and order for the regional lymph nodes examination in the maxillofacial region: submandibular, submental, parotid, maxillary, cervical, buccal, and pharyngeal.

8. Methods of examination the temporomandibular joints and studying there function.

9. Sequence of the examination of the oral cavity.

10. The procedure and methods of examination of the teeth and dental tissues, assessment of periodontal pockets, bleeding gums, percussion and study of the mobility of teeth, assessment of the degree of teeth mobility.

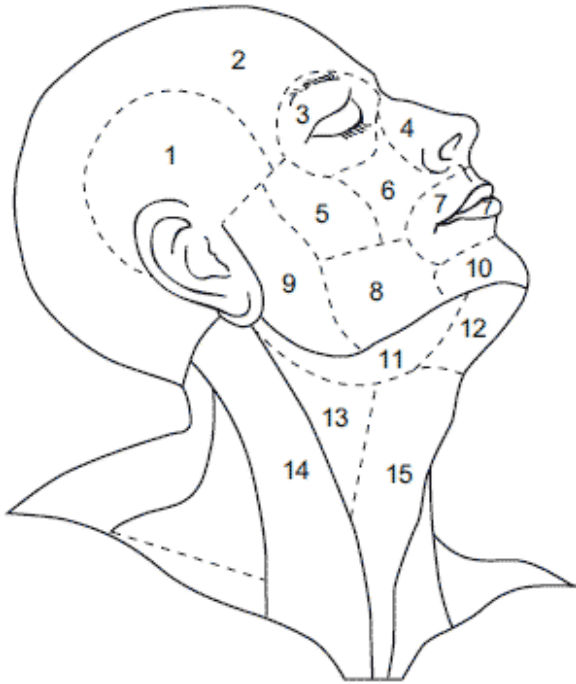
11. Methods of examination of the salivary glands and assessment of the function of the salivary glands.

12. Special equipment for salivary gland research.

13. Examination of the bones of the facial skeleton, determination of the size, shape, presence of deformities, impairment of integrity, determination of the mobility of individual bone fragments.

14. Special methods of examining of patients with pathology of the maxillofacial region (radiological methods of examination (ultrasound, CT, nuclear magnetic resonance computed tomography (NMR CT), cone-beam computed tomography (CBCT), sialography), maxillary sinus puncture, cytological examination, biopsy, laboratory methods (complete blood and urine analysis, biochemical blood test, microbiological examination).

1. Write the correct number of the areas into a table border.



- ___ buccal region;
- ___ chin region;
- ___ carotid triangle;
- ___ temporal region;
- ___ submandibular region;
- ___ scapular-tracheal triangle;
- ___ parotid-masticatory region;
- ___ orbital region;
- ___ mouth region;
- ___ chin region;
- ___ nose region;
- ___ infraorbital region;
- ___ zygomatic region;
- ___ sternocleidomastoid region;
- ___ anterior fronto-parietal-occipital region.

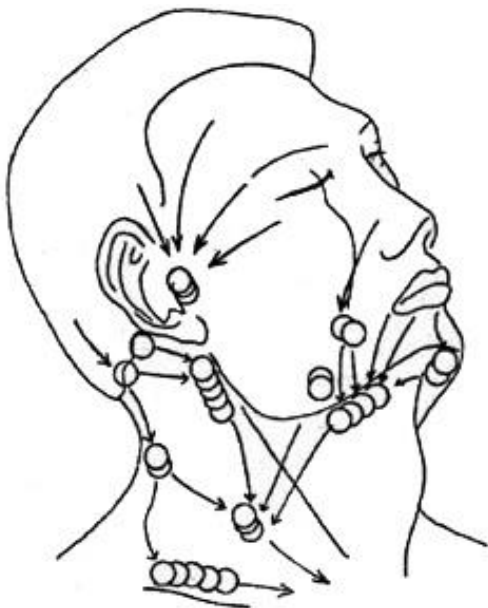
Head and anterior neck areas	Borderlines			
	upper	lower	anterior	posterior
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				

Head and anterior neck areas	Borderlines			
	upper	lower	anterior	posterior
10.				
11.				
12.				
13.				
14.				
15.				

2. Bimanual palpation is _____

3. Comparative palpation is _____

4. Specify the location of the regional lymph nodes in the maxillofacial region.



- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____
- 10) _____

The outflow from the upper jaw: _____

The outflow from the lower jaw: _____

5. Specify the indications for use and the dose of radiation exposure.

X-Ray research methods	Studied area (Area under consideration)
Sighting radiography	
Interproximal radiography	
Bite radiography	
Orthopantomography	
Radiography in front / lateral projection	
CT scan	
Cone Beam Computed Tomography	
Magnetic resonance imaging	

6. Describe the types of biopsy.

- 1) incisional _____
- 2) excisional _____
- 3) puncture _____
- 4) trepanobiopsy _____

7. Specify the methods of sampling for cytology.

1. _____
2. _____
3. _____

**Theme 4.1. LOCAL ANESTHESIA IN DENTISTRY.
LOCAL ANESTHETICS MEDICATIONS**

Control questions on the topic of practical classes:

1. Indications and contraindications for local anesthesia.
2. Types of local anesthesia.
3. Drugs used for non-injection local anesthesia.
4. Characterize the drugs of the esters group. Indications for their use.
5. Characterize the drugs of the amides group. Indications for their use.
6. Characterize the drugs belonging to the group of vasoconstrictors. Indications for their use.
7. Instruments for giving local anesthesia.

1. Fill in to the table with the characteristics of local anesthetics.

Characteristic	«Novocaine»	«Lidocaine»	«Mepivocaine»	«Articaine»
Chemical structure				
Binding to blood proteins, %	5,8	65	78	95
Toxicity	1			1,5
Half-life, min			114	
Maximum Permissible Dose (Adults)	0.25 % – ___ ml 0.5 % – 150 ml 1 % – ___ ml 2 % – ___ ml	2 % – ___ ml 4.5 mg/kg body mass (without vasoconstrictor)	3 % – ___ ml 4.5 mg/kg body mass (without vasoconstrictor)	4 % – 12.5 ml 7.0 mg/kg body mass (with vasoconstrictor)
Period of drug action	shot			middle
The speed of onset of anesthesia, min			2–4	
Duration of anesthesia, min		30–60	45–90	

2. Indicate the purpose of adding the following substances into a local anesthetic solution.

Vasoconstrictor _____

Sodium sulfite _____

EDTA (ethylenediaminetetraacetic acid)

Methylparaben _____

3. Write out a prescription (using an active ingredient list with an indication of the concentration).

«Lidocaine»	«Articaine»
Rp.:	Rp.:
D.t.d.	D.t.d.
S. For local anesthesia	S. For local anesthesia

«Novocaine»	«Mepivocaine»
Rp.:	Rp.:
D.t.d.	D.t.d.
S. For local anesthesia (nerve block anesthesia)	S. For local anesthesia (infiltrative anesthesia)

«Septanest» (_____)	«Scandanest» (_____)
Rp.:	Rp.:
D.t.d.	D.t.d.
S. For local anesthesia	S. For local anesthesia

**Theme 4.2. INFILTRATION ANESTHESIA
IN THE MAXILLO-FACIAL AREA**

Control questions on the topic of practical classes:

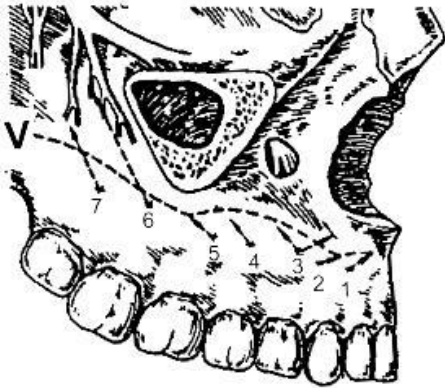
1. Indications and contraindications for infiltration anesthesia.
2. Types of infiltration anesthesia.
3. Use of maxillary infiltration anesthesia.
4. Use of mandibular infiltration anesthesia.
5. Use of infiltration anesthesia while working on the soft tissues of the maxillofacial region.

1. Specify the innervation of the teeth of the upper and lower jaw.

- 1.1, 2.1 _____
- 1.2, 2.2 _____
- 1.3, 2.3 _____
- 1.4, 2.4 _____
- 1.5, 2.5 _____
- 1.6, 2.6 _____
- 1.7, 2.7 _____
- 1.8, 2.8 _____

- 3.1, 4.1 _____
- 3.2, 4.2 _____
- 3.3, 4.3 _____
- 3.4, 4.4 _____
- 3.5, 4.5 _____
- 3.6, 4.6 _____
- 3.7, 4.7 _____
- 3.8, 4.8 _____

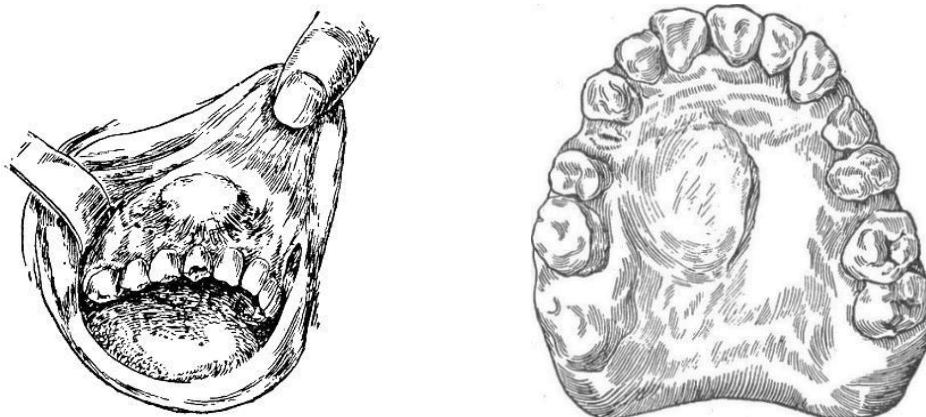
2. Write the types of infiltration anesthesia.



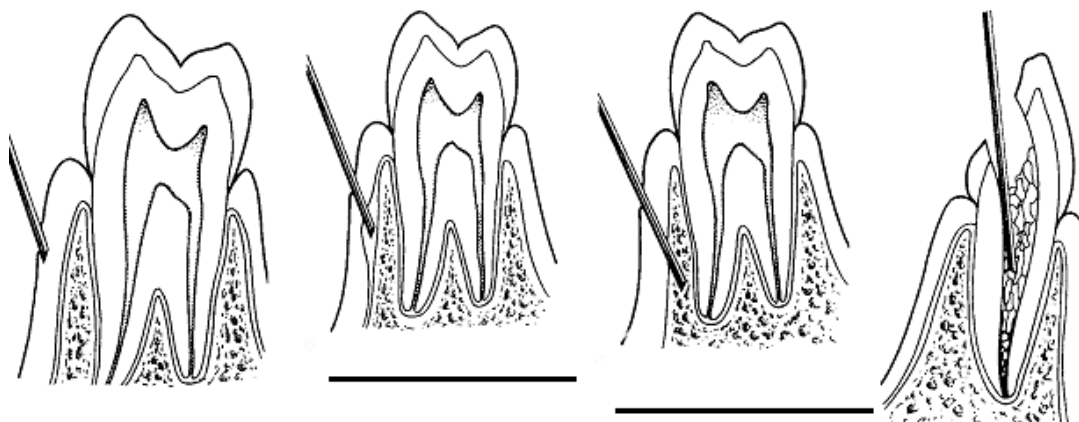
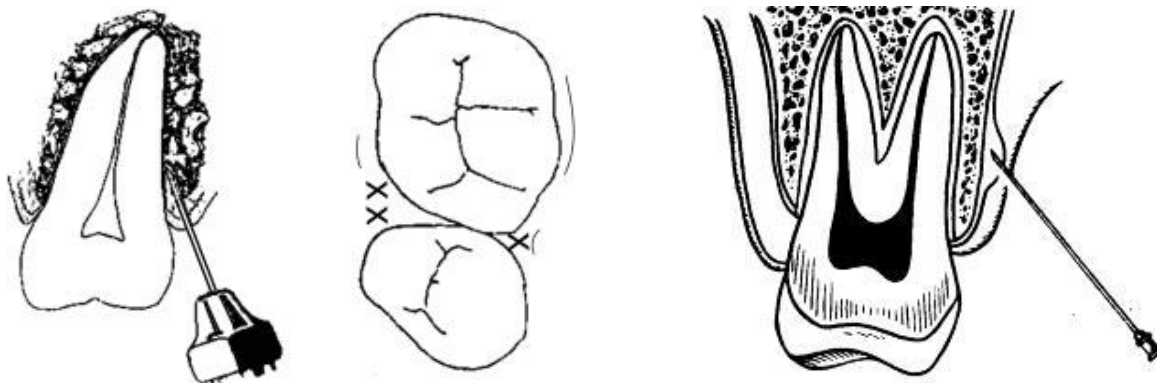
- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

3. The method of tight creeping infiltration according to A. V. Vishnevsky is

4. Draw needle injecting points during infiltration anesthesia in patients with acute serous / purulent periostitis of the right upper jaw.



5. Write the types of infiltration anesthesia shown in the pictures.



6. Draw the conditional line corresponding to the transition fold, and indicate the point of needle injection and the direction of the injection during infiltration anesthesia in the area of 1.6, 1.3, 1.1.



Theme 5. NERVE BLOCK ANESTHESIA ON THE LOWER JAW

Control questions on the topic of practical classes:

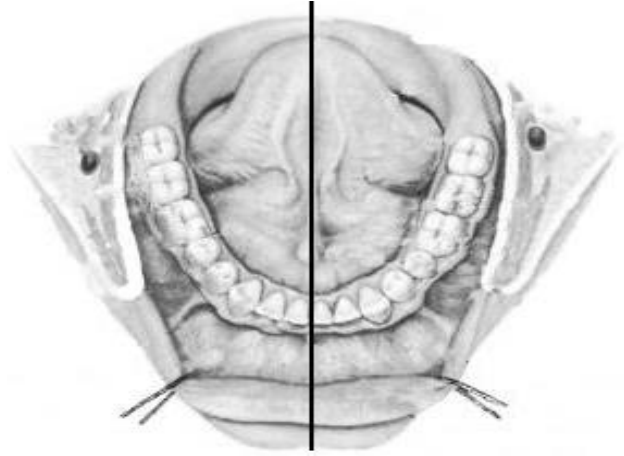
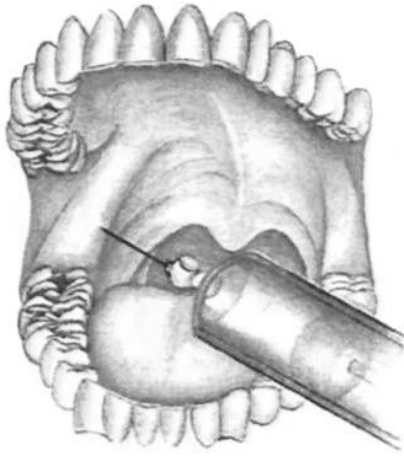
1. Characterize the differences between nerve block and infiltration anesthesia.
2. Name the types of nerve block anesthesia in the lower jaw and indications for their conduction.
3. Mandibular nerve block anesthesia. Indications, technique of conducting, zone of anesthesia.
4. Apodactic method of mandibular nerve block anesthesia. Anatomical landmarks.
5. Palpatory method of mandibular nerve block anesthesia. Anatomical landmarks.
6. Buccal nerve anesthesia. Indications, technique of conducting.
7. Torus nerve block anesthesia. Indications, technique of conducting. Zone of anesthesia.
8. Mental nerve block anesthesia. Indications, technique of conducting.
9. Anesthesia near the oval foramen. Indications, technique of conducting.
10. Other types of nerve block anesthesia (Go-Gates, Akinosi–Wazirani, etc.).
11. Variants of combination of nerve block and infiltration anesthesia in case of mandible teeth removal and indications for their use.

1. Name the variants of nerve block anesthesia in the lower jaw (indicate in brackets which branches of the trigeminal nerve are “turned off” in this variant of anesthesia).

- 1) _____ (_____)
- 2) _____ (_____)
- 3) _____ (_____)
- 4) _____ (_____)
- 5) _____ (_____)

2. Select the lateral fold of the pterygoid-mandibular raphe and divide it into three parts (thirds), then mark the points of the needle injection for the mandibular and torus anesthetics.

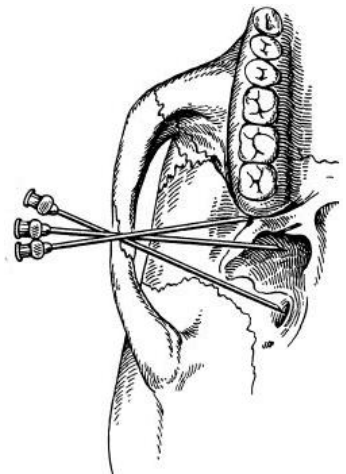
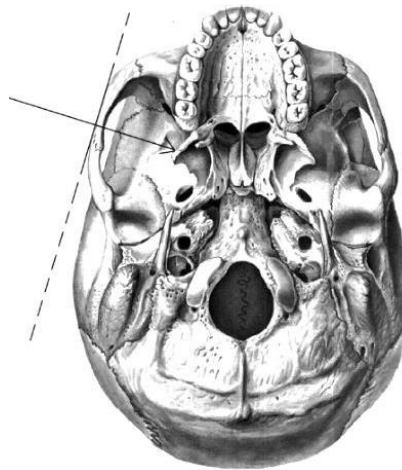
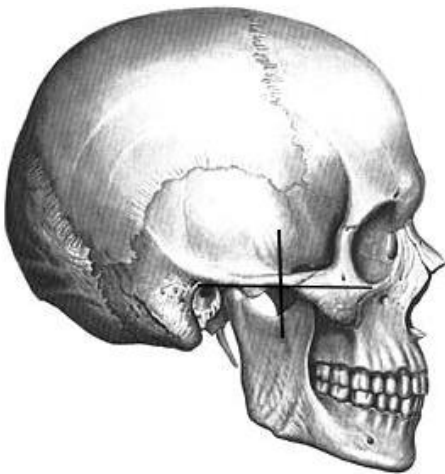
3. On the left half of the mandible, indicate the area of the mandibular nerve block anesthesia, on the right — with the torus nerve block anesthesia, show the maximum and minimum spread of anesthesia.



4. Specify the proper position of the syringe relative to the lower jaw for:

- 1) torus nerve block anesthesia _____
- 2) mandibular nerve block anesthesia _____

5. What types of anesthesia are presented in the picture? _____



6. Sign in the picture the location of the oval and round foramens. What nerves exit from the cranial cavity through them?

- 1) _____
- 2) _____

7. What is called the tragoorbital line? _____

Theme 6. NERVE BLOCK ANESTHESIA IN THE UPPER JAW

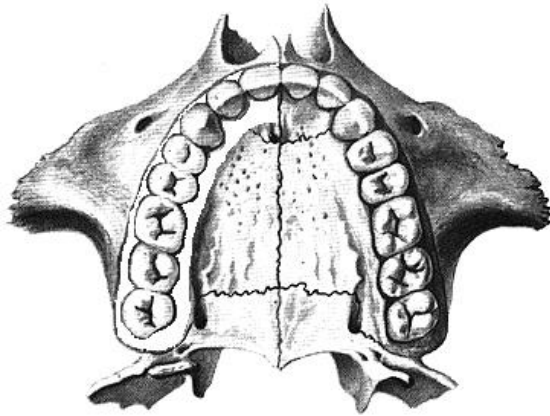
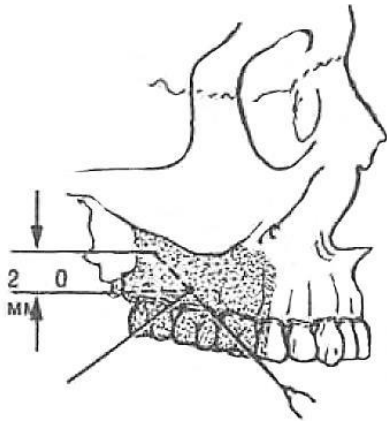
Control questions on the topic of practical classes:

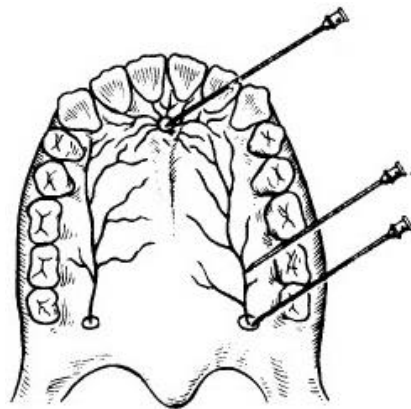
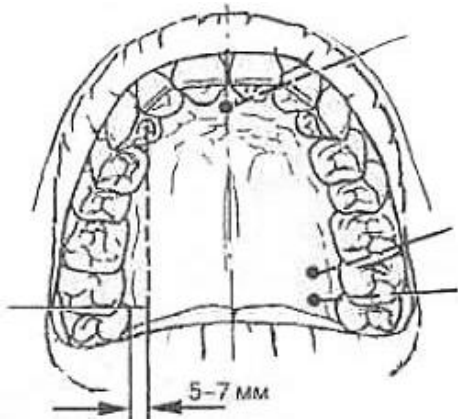
1. The difference between nerve block anesthesia and infiltration.
2. Types of nerve block anesthesia in the upper jaw.
3. Tuberal (posterior alveolar) anesthesia. Indications, technique, zone of anesthesia.
4. Prevention of local complications arising during the conduction of tubular nerve block anesthesia.
5. Anesthesia in the grate palatal foramen. Indications, technique, zone of anesthesia.
6. Nasopalatine (incisive) anesthesia. Indications, technique, zone of anesthesia.
7. Infraorbital anesthesia. Indications, techniques, zone of anesthesia.
8. Anesthesia near the foramen rotundum. Indications, techniques, zone of anesthesia.
9. Infratemporal anesthesia. Indications, technique, zone of anesthesia.
10. Variants of combination of nerve block and infiltration anesthesia used when removing the teeth of the upper jaw and indications for their use.

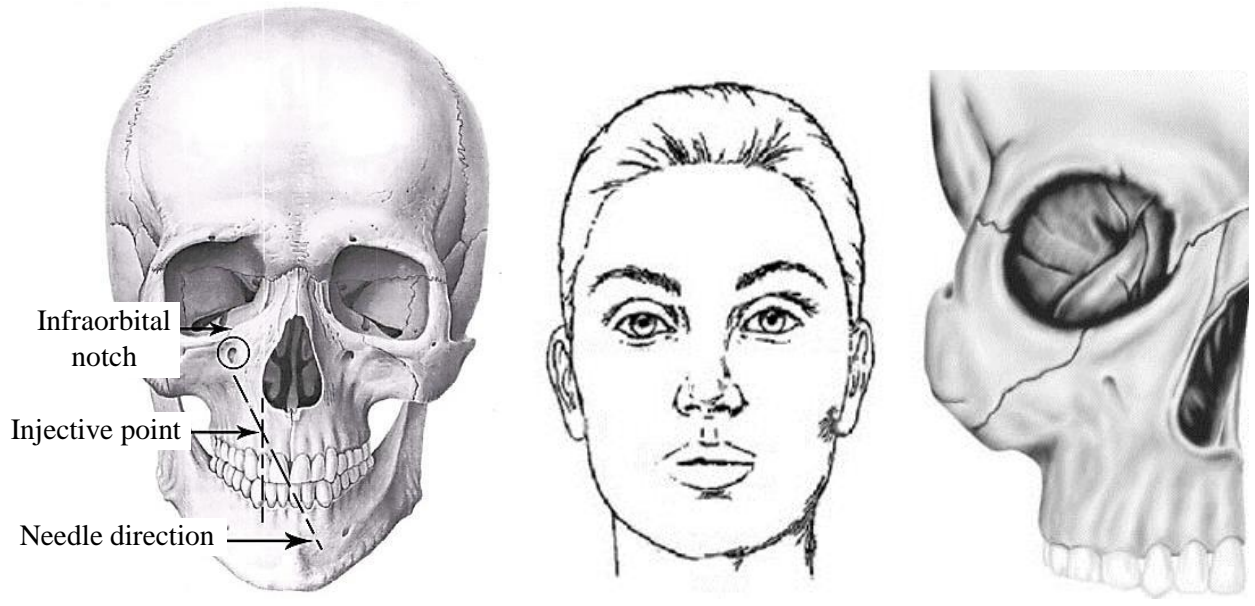
1. Describe the technique of infratemporal anesthesia. _____

2. Specify the maximum and minimum areas of anesthesia during infratemporal anesthesia. _____

3. Write the type of the nerve block anesthesia and mark the maximum and minimum zones of anesthesia.







Theme 7. LOCAL COMPLICATIONS OF INJECTING ANESTHESIA

Control questions on the topic of practical classes:

1. Complications arising after local anesthesia.
2. Delayed complications after local injective anesthesia.
3. What rules should followed while conducting local injective anesthesia in case of a purulent focus present in the soft tissues adjacent to the jaw.
4. Treatment and prevention of immediatel complications arising after introduction of local anesthesia.
5. Treatment and prevention of delayed complications arising after conduction of local anesthesia.

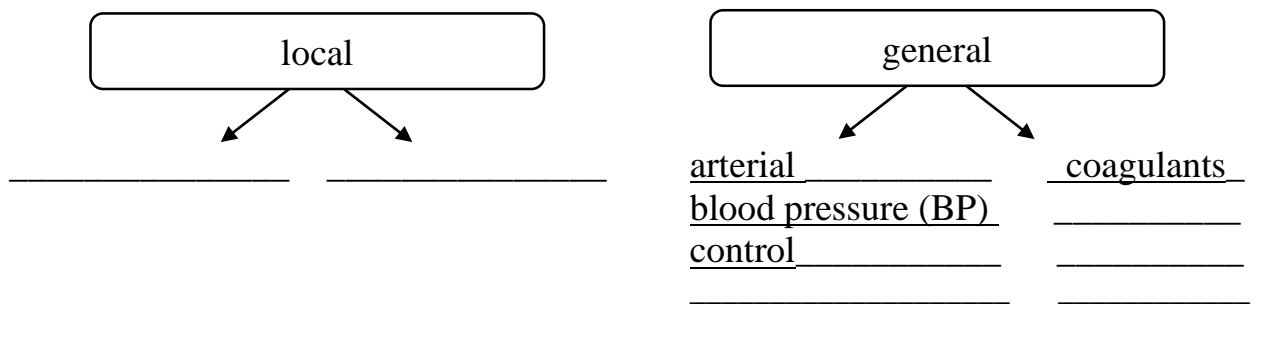
1. Diplopia is _____

2. Prevention of hematoma development in case of tuberal nerve block anesthesia.
- 1) _____
 - 2) _____
 - 3) _____

3. Specify the measures to prevent bleeding development:
- 1) _____
 - 2) _____
 - 3) anti-coagulant withdrawal; _____
 - 4) _____

4. An aspiration test is _____

5. Ways to stop bleeding that has developed as a result of nerve block anesthesia.



6. What are the main reasons for the development of traumatic injury (neuritis) of the third branch of the trigeminal nerve during nerve block anesthesia?

- 1) _____
- 2) _____
- 3) _____

7. In a case of what anesthesia is possible the development of the contracture (trismus) of the masticatory muscles?

- 1) _____
- 2) _____
- 3) _____
- 4) _____

8. List the measures for the prevention of the development of masticatory muscle contracture during nerve block anesthesia.

- 1) selection of the injection needle of small diameter; _____
- 2) _____
- 3) _____
- 4) _____

9. Postinjective abscesses and phlegmons develop as a result of:

- 1) _____
- 2) _____
- 3) Giving the injection in the area of inflammatory infiltrate _____

**Theme 8. GENERAL ANESTHESIA IN MAXILLOFACIAL SURGERY.
MULTIMODAL ANESTHESIA**

Control questions on the topic of practical classes:

1. List indications and contraindications for general anesthesia.
2. Make a plan for examining the patient before preparing for anesthesia.
3. Types of anesthesia used in the hospital. Tooling and hardware backup.
4. Types of anesthesia used in outpatient practice. Tooling and hardware backup.
5. Definitions of neuroleptanalgesia and ataralgesia, indications for their use in oral and maxillofacial surgery.
6. Identify indications and contraindications for reflexotherapy and electroanalgesia.
7. Ways and methods of tracheal intubation.
8. Complications of general anesthesia.

1. Fill in the table.

Types of narcosis		
by the number of used drugs	by application	by the way of administration
mononarcosis		
	Principal	
multi-component	basic	combined

2. Specify drugs for inhalation narcosis.

- 1) _____
- 2) _____
- 3) _____
- 4) _____

Specify drugs for non-inhalation narcosis.

- 1) _____
- 2) _____
- 3) _____
- 4) _____

3. Neuroleptanalgesia = _____ + _____

Ataralgesia = _____ + _____

4. Name the stages of narcosis.

I stage — _____ ;

II stage — _____ ;

III stage — _____ :

- 1st level (III) — surface narcosis,
- 2nd level (III) — light narcosis,
- 3rd level (III) — deep narcosis,
- 4th level (III) — ultra deep narcosis:

IV stage — _____ .

5. Local potentiated analgesia is _____

6. Complete the table of risks of general anesthesia in accordance with the scale of the American Association of Anesthesiologists (ASA).

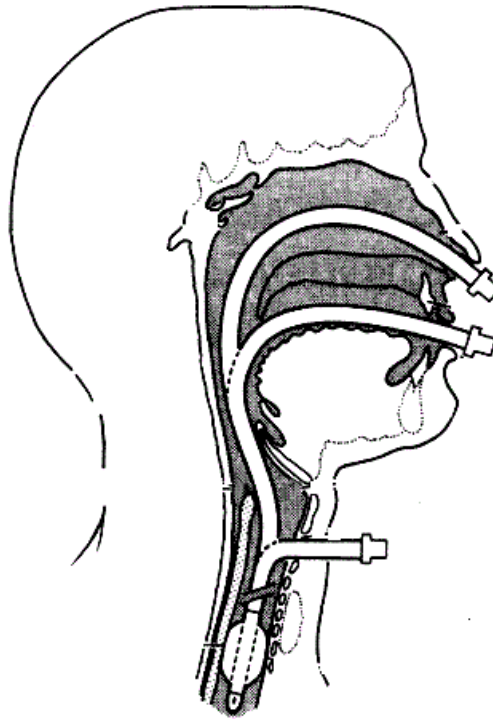
Class	
1	Patient is a completely healthy.
2	
3	Patient has severe systemic disease that is not incapacitating.
4	
5	

7. Fill in the classification of operational and anesthesiology risk according to G. A. Ryabov.

The risk degree of surgery and anesthesia	The patient's condition, type of surgery
I	
IIA	
IIB	
IIIA	

The risk degree of surgery and anesthesia	The patient's condition, type of surgery
IIIB	
IV	

8. Sign the path of tracheal intubation.



Theme 9. INDICATIONS AND CONTRAINDICATIONS FOR TOOTH EXTRACTION

Control questions on the topic of practical classes:

1. List the sanitation indications for tooth extraction.
2. List the prosthetic indications for tooth extraction.
3. List the functional indications for tooth extraction.
4. List the aesthetic indications for tooth extraction.
5. Specify absolute contraindications for tooth extraction.
6. Specify relative contraindications for tooth extraction.

1. What are the indications for tooth extraction in accordance with the following groups (reasons)?

Sanitation	Functional	Prosthetic	Aesthetic

2. Specify local absolute and relative contraindications for tooth extraction.

Absolute	Relative

3. Identify systemic absolute and relative contraindications for tooth extraction.

Absolute	Relative

4. Name the steps of tooth extraction.

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____

Theme 10–11. THE TOOLS AND TECHNIQUES FOR TEETH REMOVAL IN THE UPPER JAW. THE TOOLS AND TECHNIQUES FOR TEETH REMOVAL IN THE LOWER JAW

Control questions on the topic of practical classes:

1. What are the stages of the tooth extraction in the upper jaw?
2. What should be the correct position of the patient and the doctor during tooth extraction in the upper jaw?
3. What forceps are used to extract tooth in the upper jaw with a preserved crown?
4. What forceps are used to remove tooth in the upper jaw with a destroyed crown?
5. Name the methods of holding the forceps during removing teeth in the upper jaw.
6. Technique of removal of incisors and canines in the upper jaw.
7. Technique of removal of premolars in the upper jaw.
8. Technique of removal of molars in the upper jaw.

Control questions on the topic of practical classes 12:

1. What are the stages of the tooth extraction in the lower jaw?
2. What should be the correct position of the patient and the doctor during tooth extraction in the lower jaw?
3. What forceps are used to remove tooth in the lower jaw with a preserved crown?
4. What forceps are used to remove tooth in the lower jaw with a destroyed crown?
5. What are the differences between forceps curved along the edge and forceps curved along the plane?
6. Name the methods of holding the forceps during removing teeth in the lower jaw.
7. Technique of removal of incisors and canines in the lower jaw.
8. Technique of removal of premolars in the lower jaw.
9. Technique of removal of molars in the lower jaw.

1. The sign of curving the handle is _____

2. The sign of angle is _____

3. The sign of the side of the forceps is determined by _____

4. Based on the width of the cheeks, the forceps are divided into:

- 1) _____
- 2) _____
- 3) _____

5. What surfaces does the hinge have and where does each one face?

- 1) _____
- 2) _____

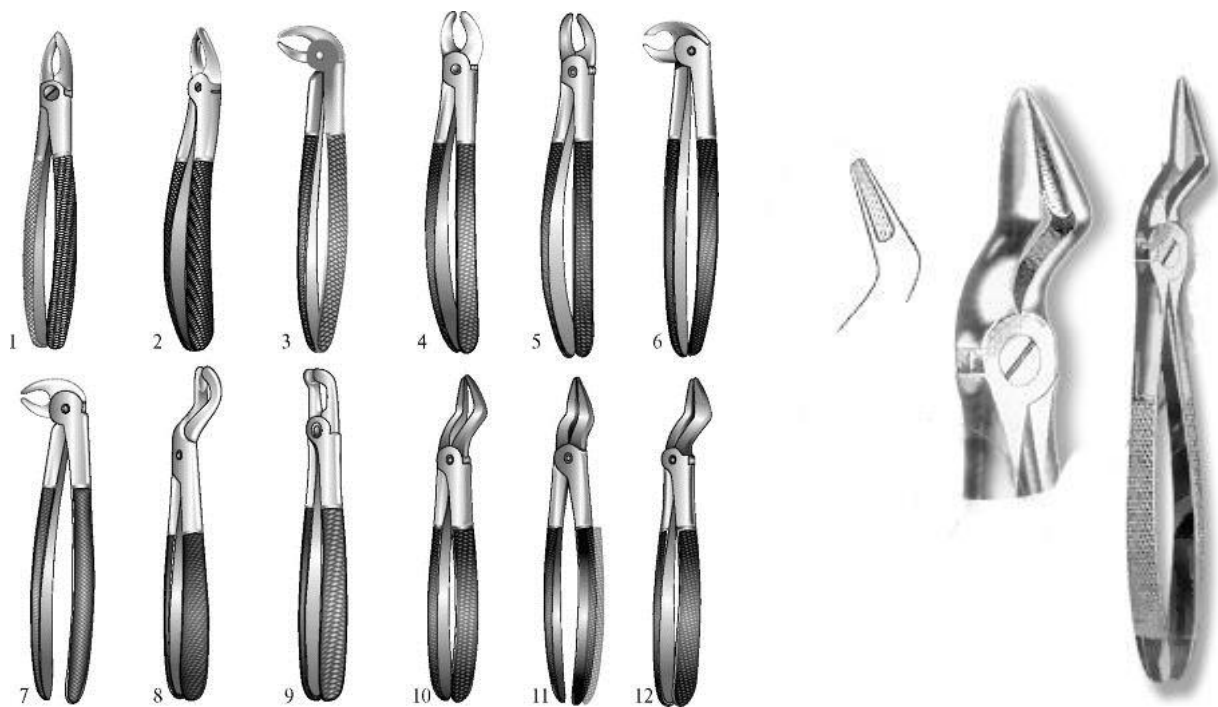
6. Name the parts of forceps.

- 1) _____
- 2) _____
- 3) _____

7. Name the parts of elevator.

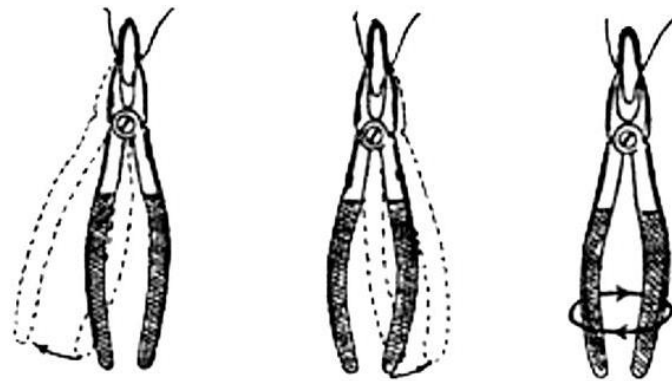
- 1) _____
- 2) _____
- 3) _____

8. Name the forceps:



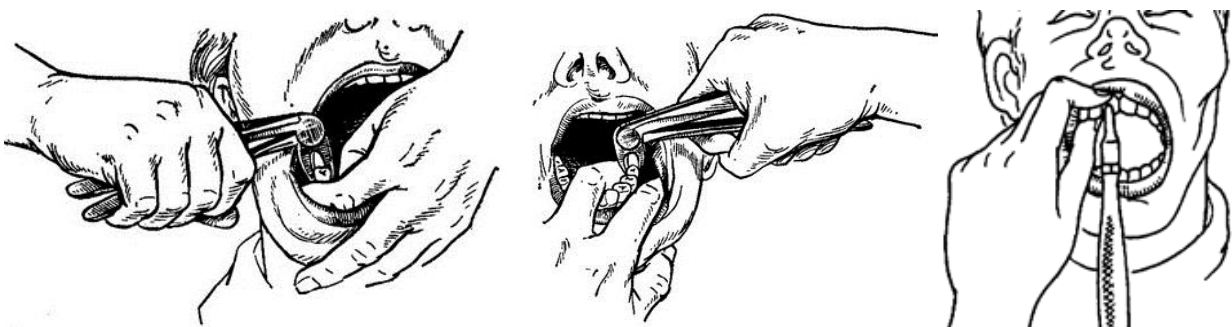
- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____
- 10) _____
- 11) _____
- 12) _____

9. What are the movements for the «luxation» of the tooth during its removal? Explain the answer by definitions.



- 1) _____
- 2) _____

10. Specify the group of teeth and the ergonomic position of the doctor during teeth extractions in the upper and lower jaws on the right and on the left.



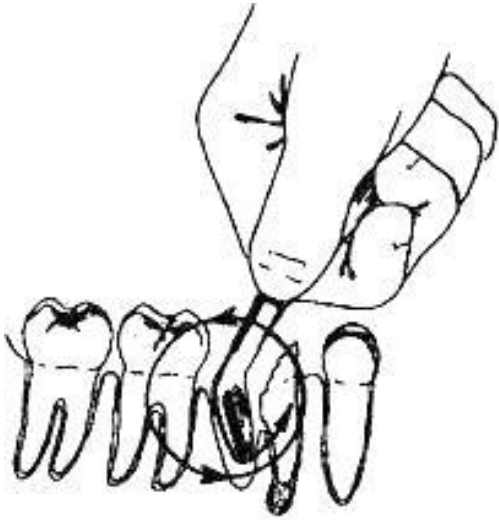
- | | | |
|--|--|--|
| | | |
| | | |

11. Name the types of elevators.

- 1) _____
- 2) _____ :

 - a) _____
 - б) _____

12. What elevator is for extraction of:



- 1) medial root of the tooth 3.6 _____

- the doctor is standing _____
- 2) medial root of the tooth 4.6 _____

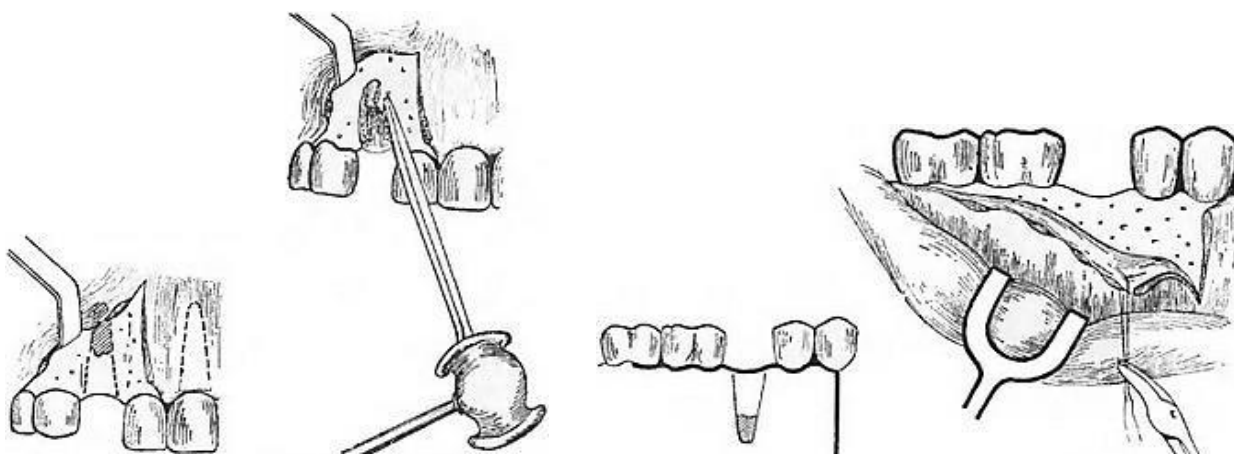
- the doctor is standing _____

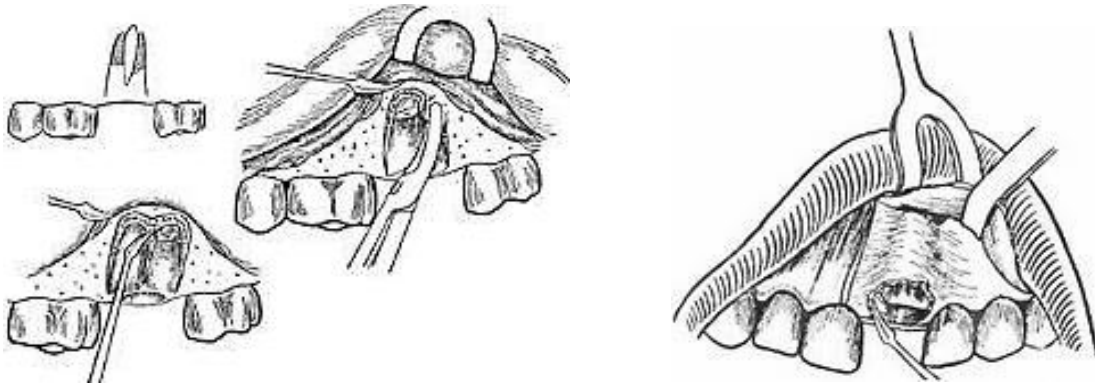
Theme 12. METHODS OF OPERATION OF COMPLEX EXTRACTION OF TEETH ON THE UPPER AND LOWER JAWS

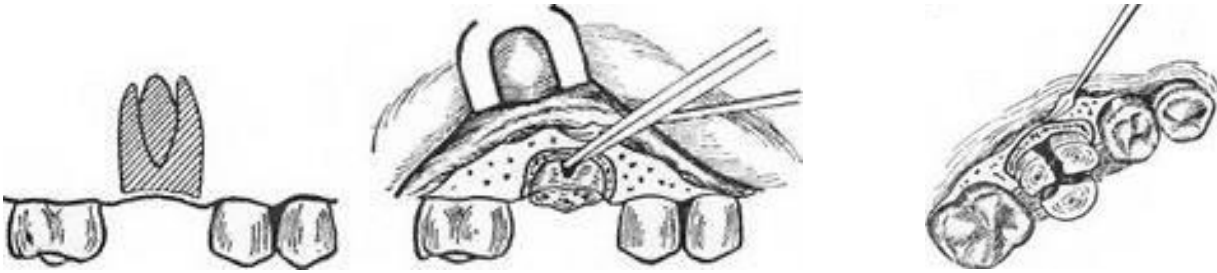
Control questions on the topic of practical classes:

1. List the etiological factors and pathogenetic aspects of atypical dentition.
2. What is the «operation of complex tooth extraction»?
3. What is the «operation of atypical tooth extraction»?
4. Basic rules of ergonomics during the operation of complex surgical tooth extraction.
5. Stages of the operation of complex surgical tooth extraction.
6. List the methods of radiological diagnosis that can be used to determine the anatomical location of the tooth.
7. Name the classifications of the spatial location of the third molars in jaws.
8. Name the indications for the complex surgical tooth extraction by elevators.
9. Determine the indications for the complex surgical tooth extraction using the dental unit.
10. Technique of using the osteotomic chisel during the complex surgical tooth extraction.
11. Operative accesses used in the complex surgical tooth extraction.
12. Treatment of wounds after the complex surgical tooth extraction.
13. Treatment management of the patient after the complex surgical tooth extraction.

1. In a case of what variants of root fracture can we perform the complex surgical / atypical tooth extractions techniques and what tools can be used?





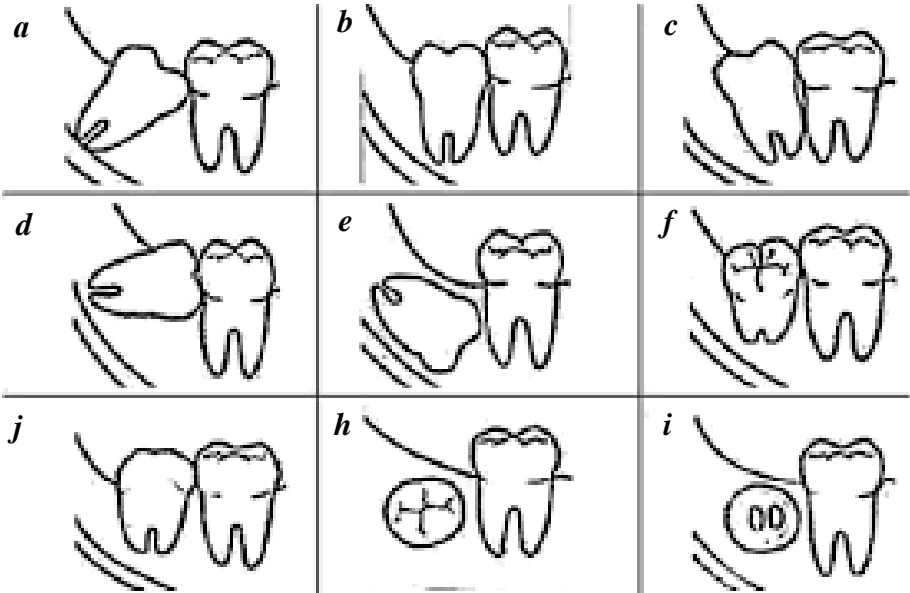


2. Name the possible techniques of tooth extraction in case of hypercementosis:



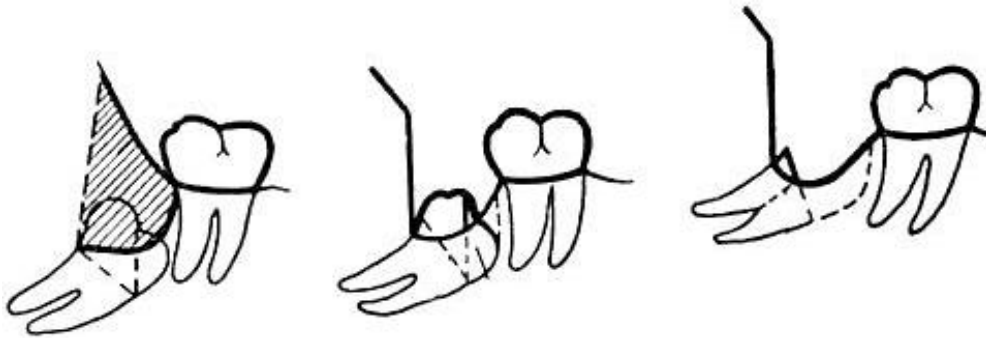
1. _____
2. _____
3. _____

3. Name the variants of the spatial location of the third lower molar in the jaw.

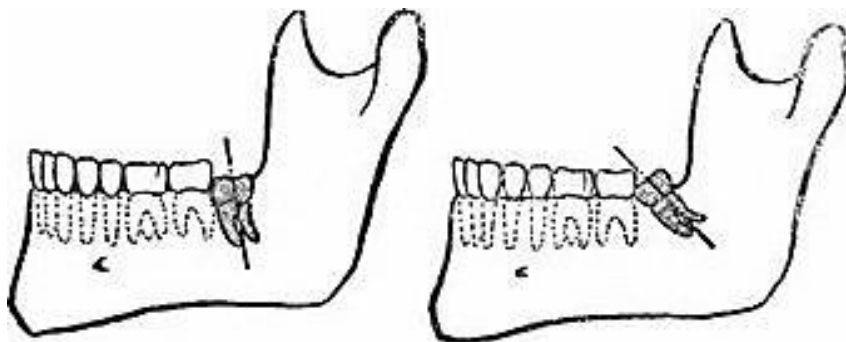


- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- j) _____
- h) _____
- i) _____

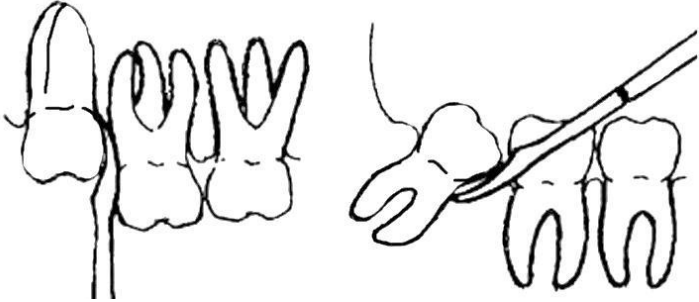
4. Name the type of operation and indications for its performing.



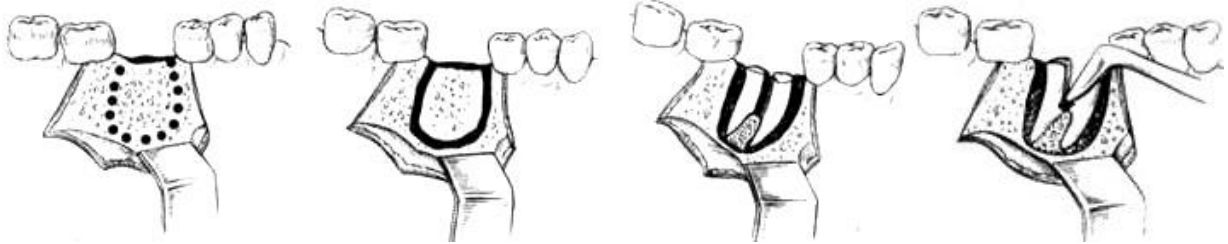
5. Draw the incision line of the mucous membrane during tooth extraction, if it's necessary.



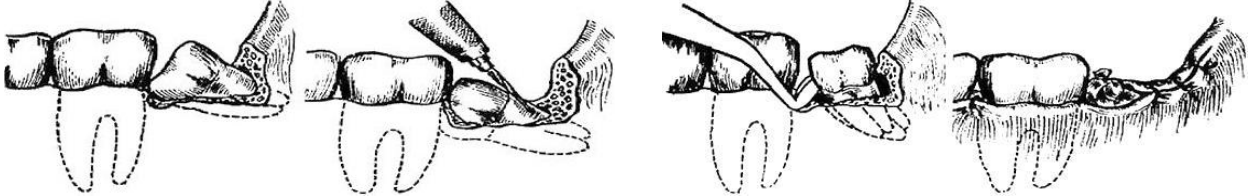
6. Draw the direction of the straight elevator movement and the movements the tooth luxation, during the third molar extraction on the upper and lower jaws.



7. Sign the stages of the complex surgical (atypical) tooth extraction.



8. List and sign the steps of the atypical tooth extraction.



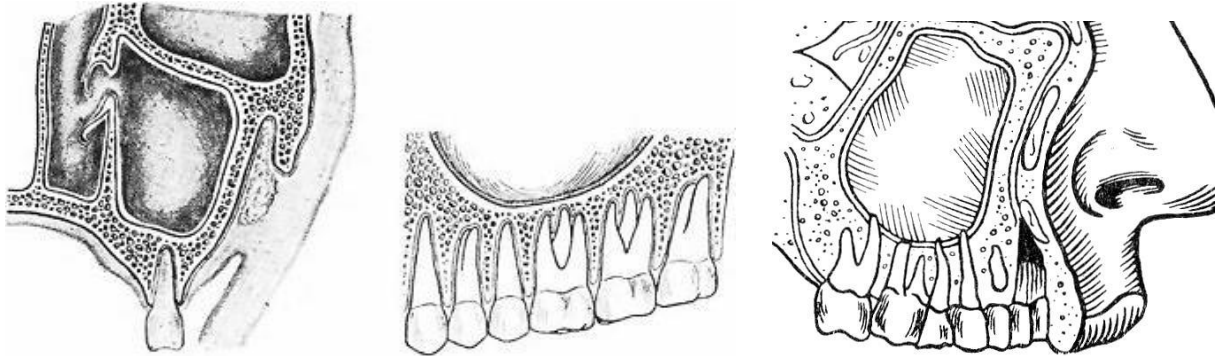
- 1) _____
- 2) _____
- 3) _____
- 4) _____

Theme 13. LOCAL COMPLICATIONS OF TOOTH EXTRACTION

Control questions on the topic of practical classes:

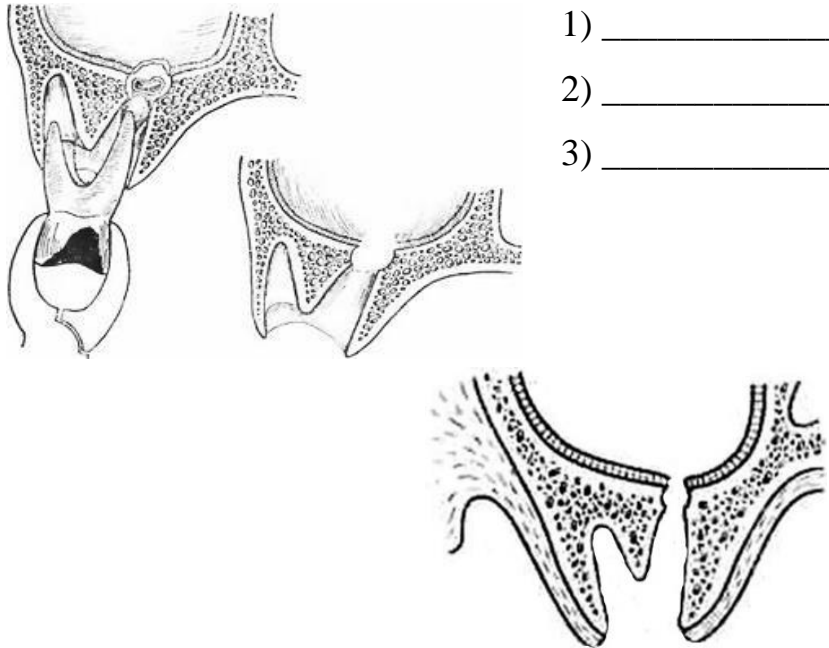
1. List the local complications, arising during the tooth extraction.
2. Fracture of the extracted tooth or its root. Causes, clinical picture, diagnosis, treatment, prevention.
3. Fracture of the antagonist-tooth. Causes, clinical picture, diagnosis, treatment, prevention.
4. Dislocation or removal of the adjacent tooth. Causes, clinical picture, diagnosis, treatment, prevention.
5. Fracture of the lower jaw. Etiology, clinical picture, diagnosis, treatment, prevention
6. Dislocation of the lower jaw. Causes, clinical picture, diagnosis, treatment, prevention.
7. Fracture of the adjacent part of the alveolar bone. Causes, clinical picture, diagnosis, treatment, prevention.
8. Tuber maxillae fracture. Causes, clinical picture, diagnosis, treatment, prevention.
9. Perforation of the maxillary sinus bottom. Causes, clinical picture, diagnosis, treatment, prevention.
10. Injury of the surrounding soft tissue. Causes, clinical picture, diagnosis, treatment, prevention.
11. Pushing the root of the tooth under the soft tissue of the floor of the mouth. Causes, clinical picture, diagnosis, treatment, prevention.
12. Profuse bleeding. Causes, local and general measures to stop bleeding, prevention.
13. List the local complications, arising after tooth extraction.
14. List the clinical symptoms of alveolar socket bleeding.
15. List the causes of alveolar socket bleeding.
16. Methods for stopping of alveolar socket bleeding in outpatient conditions.
17. List the causes of alveolar socket pain and the ways for its relief..
18. Name the symptoms of alveolitis.
19. Name the causes of the alveolitis development.
20. Treatment plan for a patient with alveolitis.
21. Temporary disability of the patient with alveolar socket bleeding and alveolitis.
22. What recommendations should be given to the patient on hygienic oral care after the tooth extraction?

1. Sign the variants of the location of the roots of the teeth in relation to the bottom of the maxillary sinus and shade the teeth, the roots of which are most often adjacent or stand in that sinus.



- 1) _____
- 2) _____
- 3) _____
- 4) _____

2. Specify the variants of the techniques for closing the maxillary sinus perforation:

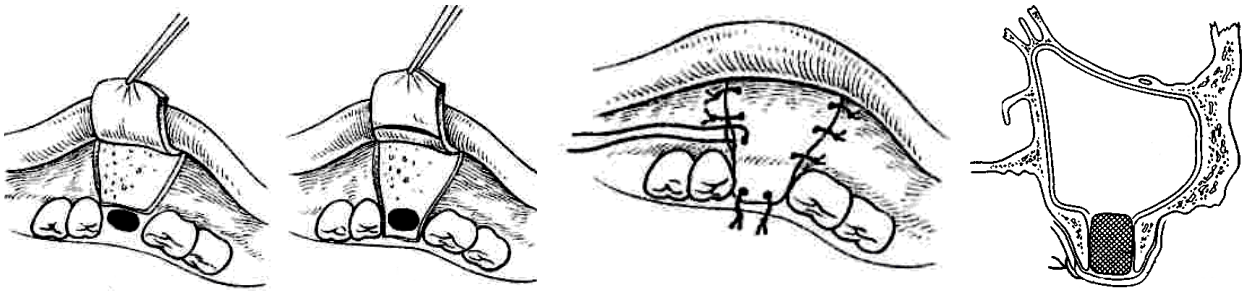


- 1) _____
- 2) _____
- 3) _____

3. Specify the deep of the tamponing of the alveolar socket with an iodoform turunda during closing the maxillary sinus perforation?

4. What materials can you use for closing the maxillary sinus perforation?

5. List the stages of the operation of plastic closing of the maxillary sinus perforation with mucous-periosteal flap.



6. What is the difference in the tactics of closing the maxillary sinus perforation depending on the diameter of the hole and the presence/absence of the inflammatory process in the maxillary sinus?

1) in a case of the size of the perforation corresponding to the diameter of the root of the removed tooth, and the absence of purulent exudation from the maxillary sinus:

with point perforation (1–2 mm):

2) in case of perforation and incomplete tooth extraction/pushing of the tooth root or the whole tooth inside the maxillary sinus:

3) in case of discharge of purulent exudate through the perforation hole:

7. Fill in the table.

Local complication	Causes	Clinical picture	Treatment
Dislocation of the lower jaw			
Fracture of the lower jaw			
Fracture of the maxillary tuber	1) hypercementosis; 2) negligent or rough tooth extraction; 3) working with incorrect instrument		
Traumatic injury (neuritis) of the third branch of the trigeminal nerve			
Bleeding (primary)			
Bleeding (secondary)			
Alveolitis			

Theme 14. LOCAL ANESTHESIA PECULIARITIES AND TEETH REMOVAL IN PATIENTS WITH SOMATIC PATHOLOGY

Control questions on the topic of practical classes:

1. Determine the indications and contraindications for performing a tooth extraction in a patient with arterial hypertension in an outpatient clinic, select an anesthetic, features of a tooth extraction.

2. Determine the indications and contraindications for performing a tooth extraction in a patient with coronary heart disease in an outpatient clinic, select an anesthetic, features of a tooth extraction.

3. Determine the indications and contraindications for performing a tooth extraction in a patient with bronchial asthma in an outpatient clinic, select an anesthetic, features of a tooth extraction.

4. Determine the indications and contraindications for performing a tooth extraction in a patient with diabetes in an outpatient clinic, select an anesthetic, features of a tooth extraction.

5. Determine the indications and contraindications for performing a tooth extraction in a patient with hemorrhagic diathesis in an outpatient clinic, select an anesthetic, features of a tooth extraction.

6. Postoperative treatment plan for patients with different somatic pathologies, features of tooth extractions in them.

7. Preoperative preparation plan for patients with somatic pathology for a planned operation of tooth extraction under local anesthesia, features of tooth extractions in them.

1. Explain the indications / contraindications for using of the local anesthetics in patients with somatic diseases or other conditions.

Disease / other condition	«Lidocaine»	«Articaini»
Arterial hypertension		
Arrhythmia	Stabilizes the cell membrane and contributes to the suppression of ectopic foci	
Bradycardia		
Tachycardia		
Bronchial asthma		

Disease / other condition	«Lidocaine»	«Articaini»
Diabetes		
Thyrotoxicosis		
Epilepsy	It penetrates the blood-brain barrier	
Pregnancy		
Lactation		

2. Indicate the effects of vasoconstrictor (adrenaline) as part of local anesthetics on the following organs and systems.

Organ / system	Adrenalin effect
Cardiovascular system	1) Blood vessels: _____ 2) Heart rate: _____ 3) Arterial blood pressure: _____ 4) Cardiac activity: _____
Respiratory system	Relaxes the smooth muscles of the bronchi, increases their diameter; stabilized with antioxidant (sodium sulfite), which can cause an allergic reaction
Thyroid gland	The increased level of thyroid hormones in the blood contributes to a significant increase in the sensitivity of the patient to the catecholamines, which potentiate the cardiotoxic effect with an excess of thyroid hormones
Organ of vision (eye)	
Liver	

3. List the measures for the prevention of the development of emergency conditions in patients with somatic pathology.

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

7) _____

Theme 15. COMMON COMPLICATIONS ASSOCIATED WITH TOOTH EXTRACTION. PROVISION OF EMERGENCY MEDICAL SERVICES. DRUG ANAPHYLACTIC SHOCK

Control questions on the topic of practical classes 16:

1. Describe the main clinical symptoms of arterial hypertension.
2. List the emergency conditions that can develop in patients with arterial hypertension at an outpatient surgical dental clinic.
3. List the factors contributing to the development of hypertensive crisis in patients with arterial hypertension.
4. List the main clinical symptoms of hyperkinetic type of hypertensive crisis.
5. List the main clinical symptoms of the hypokinetic type of hypertensive crisis.
6. Name the possible complications of arterial hypertension.
7. List the preventive measures to reduce the risk of complications in patients with arterial hypertension.
8. Management of urgent care for patients with hypertensive crisis in an outpatient dental clinic.
9. List the risk factors for the development of stroke in an outpatient dental clinic.
10. List the main cerebral clinical symptoms of cerebral circulation disorder.
11. List the main focal neurological clinical symptoms of cerebral circulation disorders.
12. List the preventive measures to reduce the risk of cerebral infarction during the dental surgery in an outpatient clinic.
13. List the most common manifestations of coronary heart disease (CHD).
14. List the factors contributing to the development of an attack of angina pectoris.
15. List the main symptoms of an attack of angina pectoralis.
16. List the main measures to prevent complications of CHD.
17. List the main symptoms of myocardial infarction.
18. Name the management of the urgent care for the patient with acute myocardial infarction.
19. The definition of bronchial asthma.
20. List the main clinical symptoms of a bronchial asthma attack.
21. Name the factors contributing to the development of bronchial asthma attack.
22. List the preventive measures to reduce the risk of developing a bronchial asthma attack at an outpatient dental surgery.
23. List the main clinical symptoms of hyperglycemic coma.
24. List the factors contributing to the development of hyperglycemic coma in patients with diabetes mellitus at an outpatient dental surgery.
25. List the preventive measures to reduce the risk of hyperglycemic coma at an outpatient dental surgery.

26. Management of emergency care for patients with hyperglycemic coma.
27. What factors contribute to the development of hypoglycemic coma?
28. List the symptoms of hypoglycemic coma.
29. Management of emergency care for patients with hypoglycemic coma.
30. What are the main symptoms of an epilepsy attack?
31. What are the factors contributing to the development of an epilepsy attack?
32. List the measures to prevent the development of an epilepsy attack in patients with epilepsy. Management of emergency care in a case of an epilepsy attack.
33. Give the definition of drug allergic shock.
34. List the risk factors for drug anaphylactic shock (DASH) development.
35. What type of allergenic reaction is DASH?
36. Definitions of sensitization?
37. List the drugs, after using of which DASH most often develops.
38. Describe the clinical picture of DASH.
39. Name the 5 types of DASH depending on the leading syndrome and describe the features of their clinical symptoms.
40. Describe the clinical picture of the mild clinical form of DASH.
41. Describe the clinical picture of the moderate severity clinical form of DASH.
42. Describe the clinical picture of severe clinical form DASH.
43. Describe the algorithm of the urgent care for patient with the DASH.
44. Describe the treatment management in a case of the absence of a positive dynamic in the patients' clinical picture within 20–30 minutes of the urgent care in a case of DASH.
45. What is it primary and secondary prevention of DASH?
46. Describe the allergological test technology (drip; skin test sample; scarification skin test; provocative sublingual sample; oral test; parenteral test).

1. Prescribe medications for the relief of anaphylactic shock.

«Adrenaline» («Epinephrine»)	«Prednisolone»
Rp.:	Rp.:
D.t.d.	D.t.d.
S.	S.

2. Prescribe drugs to relieve collapse.

Corticosteroid	«Caffeine»
Rp.:	Rp.:
D.t.d.	D.t.d.
S.	S.
«Mezaton»	Sodium chloride
Rp.:	Rp.:
D.t.d.	D.t.d.
S.	S.

3. Prescribe medication to relieve fainting.

Ammonium chloride
Rp.:
D.t.d.
S.

4. Prescribe medications to relieve an attack of bronchial asthma.

«Salbutamol»	«Euphyllin»
Rp.:	Rp.:
D.t.d.	D.t.d.
S.	S.

5. List the types of drug anaphylactic shock, depending on the leading syndrome.

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

6. What is the protocol of providing emergency medical care for the ABC system?

- A — _____
- B — _____
- C — _____

7. List the main symptoms of mild anaphylactic drug shock.

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____

8. What measures does the primary prevention of anaphylactic shock include (limiting the development of sensitization to drugs)?

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

9. What measures does the secondary prevention of anaphylactic shock include (prevention of recurrence of drug allergy)?

- 1) _____
- 2) _____
- 3) _____

10. Write in the table the management of the emergency care.

Emergency situations	Treatment management
Fainting	
Collapse	
Hypertensive crisis	
Stenocardia (angina pectoris)	
Bronchial asthma	
Hyperglycemic coma	
Hypoglycemic coma	
Epilepsy	
Drug anaphylactic shock	

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Учебное издание

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**ХИРУРГИЧЕСКАЯ СТОМАТОЛОГИЯ
И ПРОПЕДЕВТИКА ХИРУРГИЧЕСКИХ ЗАБОЛЕВАНИЙ
ЧЕЛЮСТНО-ЛИЦЕВОЙ ОБЛАСТИ**

**ORAL SURGERY AND PROPAEDEUTIC
OF MAXILLOFACIAL SURGICAL DISEASES**

Практикум для студентов, обучающихся
по специальности «Стоматология» в 5-м семестре

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