

Federal State Budgetary Educational Institution  
of Higher Education  
"NORTH OSSETIAN STATE MEDICAL ACADEMY"  
of the Ministry of Health of the Russian Federation



**Department of Dentistry No. 2**

**METHODOLOGICAL RECOMMENDATIONS FOR STUDENTS**

**MODULE**

**"LOCAL ANESTHESIA AND ANESTHESIOLOGY IN  
DENTISTRY"**

**Vladikavkaz**

**Topic No. 1.** Local anesthetics and medications used for local anesthesia.

**The purpose of the lesson:** to learn the principles of choosing an anesthetic and the type of local anesthesia during operations on the face and in the cavity.

**Objectives of the lesson:** to study the clinical and pharmacological characteristics of medicines used for local anesthesia: local anesthetics, sedatives, vasoconstrictors.

**Basic concepts:** local anesthesia (application, infiltration, conduction), potentiated anesthesia, premedication.

**Questions for the lesson:**

1. Classification of local anesthetics.
2. The mechanism of action of local anesthetics.
3. Dosage forms of local anesthetics, methods of application, single doses.
4. Carpalated local anesthetics. Composition. Requirements for carpalated anesthetics.
5. Vasoconstrictors used simultaneously with local anesthetics, their mechanism of action, higher single doses, indications and contraindications for use.

**Questions for self-control:**

1. Rules of storage of medicines for local anesthesia.
2. Comparative characteristics of local anesthetics of the ether and amide series.

**Practical work:** demonstration of various types of local anesthetics used in surgical dentistry.

## **Recommended literature:**

### **Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp. 268 – 287.
2. Propaedeutics of surgical dentistry: textbook. manual / T.N. Vladychenkova et al.; under the general Ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – pp.52-69, 204-211.
3. Surgical dentistry / Edited by T.G. Robustova. 3rd edition, reprint. and additional.– M.: Medicine, 2003. – pp.92-97, 52-69.
4. Surgical dentistry: textbook / Afanasyev V.V. et al.; under the general editorship of V.V. Afanasyev. – M.: GEOTAR – Media, 2010 – pp. 106-121, 175- 179.

### **Additional:**

1. Grischuk S.F. Anesthesia in dentistry / S.F. Grischuk. – M.: LLC "Medical Information Agency", 1998. – pp. 7-47.
2. Rabinovich S.A. Modern technologies of local anesthesia in dentistry / S.A. Rabinovich. – M., 2000. – pp. 15-82.
3. Manual of surgical dentistry and maxillofacial surgery/Edited by V.M. Bezrukov, T.G. Robustova. – 2nd Ed., reprint. and additional.- M.: Medicine, 2000. – Vol.1. – pp. 80-95.

**Topic No. 2.** Types of local anesthesia. Potentiated local anesthesia. Premedication.

The purpose of the lesson: to learn how to anesthetize tissues during operations in the maxillofacial region.

**The objectives of the lesson:** to study the indications for various types of local anesthesia during surgical interventions on the upper jaw, to study the methods of infiltration anesthesia and conduction anesthesia in the innervation zone of the II branch of the trigeminal nerve.

**Basic concepts:** infiltration anesthesia, conduction anesthesia, premedication, potentiated anesthesia.

**Questions for the lesson:**

1. Indications for local anesthesia in the oral cavity and on the face.
2. Contraindications to local anesthesia in the oral cavity and on the face.
3. Methods of administration of local anesthetics. Application and infiltration anesthesia in the maxillofacial region. Advantages and disadvantages of each type of anesthesia.
4. Conduction anesthesia in the maxillofacial region. Advantages and disadvantages of conductor anesthesia.
5. Potentiated local anesthesia. Indications and contraindications to its use.
6. Medicines used for potentiated anesthesia.
7. Premedication. Indications and contraindications to premedication.
8. Medicines used for premedication.

**Questions for self-control:**

1. List the indications for intra-ligament anesthesia.
2. What are the advantages and disadvantages of conducting anesthesia techniques for surgical interventions in the maxillofacial region.

**The practical part of the lesson:** reading radiographs, filling out the medical card of a dental patient (form No. 043 / y), solving situational problems.

## **Recommended literature:**

### **Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp.287 - 302.
2. Propaedeutics of surgical dentistry: textbook. manual / T.N. Vladychenkova et al.; under the general Ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – pp.69-88.
3. Surgical dentistry /Edited by T.G. Robustova. 3rd Ed., reprint. and additional– M.: Medicine, 2003. – pp. 65-68, 70-80, 88.
4. Surgical dentistry: textbook / Afanasyev V.V. et al.; under the general editorship of V.V. Afanasyev. – M.: GEOTAR – Media, 2010 – pp. 121 - 141.

### **Additional:**

1. Rabinovich S.A. Modern technologies of local anesthesia in dentistry / S.A. Rabinovich. – M., 2000. – pp. 75-92, 116-127.
2. Manual of surgical dentistry and maxillofacial surgery/Edited by V.M. Bezrukov, T.G. Robustova. – 2nd Ed., reprint. and additional- M.: Medicine, 2000. – Vol. 1. – pp. 80-84, 90-100, 105-106.
3. Grischuk S.F. Anesthesia in dentistry /S.F. Grischuk. – M.: LLC "Medical Information Agency", 1998. – pp. 43-51, 56-58.

**Topic No. 3.** The choice of anesthesia and preparation of the patient for intervention in concomitant diseases and in the elderly.

**The purpose of the lesson:** to learn the principles of choosing an anesthetic and the type of local anesthesia during operations on the face and in the oral cavity in patients with concomitant pathology and the elderly.

**Objectives of the lesson:** to study the indications and contraindications for local anesthesia during surgical interventions on the face and in the oral cavity in patients with concomitant pathology, pregnant women, and the elderly.

Basic concepts: hypertension, bronchial asthma, toxic reaction.

**Questions for the lesson:**

1. Features of local anesthesia in patients with arterial hypertension.
2. Features of local anesthesia in patients with coronary heart disease.
3. Features of local anesthesia in patients with bronchial asthma.
4. Features of local anesthesia in patients with a burdened allergic history.
5. Features of local anesthesia in pregnant women.
6. Features of local anesthesia in elderly patients.

**Questions for self-control:**

1. Preparation of the patient for local anesthesia, if there is a history of allergic reactions to a local anesthetic.
2. What is the most favorable period of pregnancy for surgical interventions under local anesthesia.

**Practical part of the lesson:** reading radiographs, filling out the medical card of a dental patient (form No. 043/y), solving situational problems.

## **Recommended literature:**

### **Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp. 302 – 316.
2. Propaedeutics of surgical dentistry: textbook. manual / T.N. Vladychenkova et al.; under the general Ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – p.89-106.
3. Surgical dentistry /Edited by T.G. Robustova. 3rd Ed., reprint. and additional.– M.: Medicine, 2003. – pp. 68-70, 80-89.
4. Surgical dentistry: textbook / Afanasyev V.V. et al.; under the general editorship of V.V. Afanasyev. – M.: GEOTAR – Media, 2010 – pp. 141 - 174.

### **Additional literature:**

1. Agapov. V.S. Anesthesiology, resuscitation and intensive care in dentistry and maxillofacial surgery: textbook /V.S. Agapov, N.V. Emelyanova, T.P. Shipkova. – M.: Medical Information Agency, 2005. – pp. 31-36.
2. Rabinovich S.A. Modern technologies of local anesthesia in dentistry / S.A. Rabinovich. – M., 2000. – pp. 92-116.
3. Manual of surgical dentistry and maxillofacial surgery/ Edited by V.M. Bezrukov, T.G. Robustova. – 2nd Ed., reprint. and additional - M.: Medicine, 2000. – Vol.1. – pp. 100-105, 106-107.
4. Stosh V.I. Guide to anesthesiology and emergency care in dentistry / V.I. Stosh, S.A. Rabinovich, S.V. Zoryan. – M.: MEDpress-inform, 2002. – pp. 94-95.
5. Grischuk S.F. Anesthesia in dentistry / S.F. Grischuk. – M.: LLC "Medical Information agency", 1998. – pp. 52-56.

**Topic No. 4:** Anesthesia during surgical interventions on the upper jaw.

**The purpose of the lesson:** to learn the principles of choosing the type of anesthesia during surgical interventions on the upper jaw, to master the methods of infiltration anesthesia and conduction anesthesia in the zone of innervation of the II branch of the trigeminal nerve.

**The objectives of the lesson:** to study the indications for various types of local anesthesia during surgical interventions on the upper jaw, to study the methods of infiltration anesthesia and conduction anesthesia in the innervation zone of the II branch of the trigeminal nerve.

**Basic concepts:** infiltration anesthesia, infraorbital anesthesia, tuberal anesthesia, palatine anesthesia, incisive anesthesia.

**Questions for the lesson:**

1. Features of infiltration anesthesia during tooth extraction on the upper jaw.
2. The technique of blocking the subglacial nerve. Indications for the use of this type of anesthesia, advantages and disadvantages.
3. The technique of blocking the upper posterior alveolar nerves. Indications for the use of this type of anesthesia, advantages and disadvantages.
4. The technique of blocking the large palatine nerve. Indications for the use of this type of anesthesia, advantages and disadvantages.
5. The technique of blocking the naso-palatine nerve. Indications for the use of this type of anesthesia, advantages and disadvantages.
6. The technique of blocking the II branch of the trigeminal nerve at the round hole. Indications for the use of this type of anesthesia, advantages and disadvantages.

**Questions for self-control:**

1. List the indications for intra-ligament anesthesia.
2. Specify the area of anesthesia during the infra-orbital anesthesia.
3. What local complication can develop when performing tuberal anesthesia? Prevention.
4. How to determine the projection of the large palatine opening?



5. What are the advantages and disadvantages of conducting anesthesia techniques for surgical interventions in the upper jaw area.

**The practical part of the lesson:** conducting various types of local anesthesia during surgical interventions on the upper jaw on phantoms.

### **Recommended literature:**

#### **Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp.287 - 302.
2. Propaedeutics of surgical dentistry: textbook. manual / T.N. Vladychenkova et al.; under the general Ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – pp.69-88.
3. Surgical dentistry /Edited by T.G. Robustova. 3rd Ed., reprint. and additional– M.: Medicine, 2003. – pp. 65-68, 70-80, 88.
4. Surgical dentistry: textbook / Afanasyev V.V. et al.; under the general editorship of V.V. Afanasyev. – M.: GEOTAR – Media, 2010 – pp. 121 - 141.

#### **Additional:**

1. Rabinovich S.A. Modern technologies of local anesthesia in dentistry / S.A. Rabinovich. – M., 2000. – pp. 75-92, 116-127.
2. Manual of surgical dentistry and maxillofacial surgery/Edited by V.M. Bezrukov, T.G. Robustova. – 2nd Ed., reprint. and additional- M.: Medicine, 2000. – Vol. 1. – pp. 80-84, 90-100, 105-106.
3. Grischuk S.F. Anesthesia in dentistry /S.F. Grischuk. – M.: LLC "Medical Information Agency", 1998. – pp. 43-51, 56-58.

**Topic No. 5.** Anesthesia during surgical interventions on the lower jaw.

**The purpose of the lesson:** to learn the principles of choosing the type of anesthesia during surgical interventions on the lower jaw, to master the methods of infiltration anesthesia and conduction anesthesia in the zone of inertia of the III branch of the trigeminal nerve.

**The objectives of the lesson:** to study the indications for various types of local anesthesia during surgical interventions on the lower jaw, to study the methods of infiltration anesthesia and conduction anesthesia in the innervation zone of the III branch of the trigeminal nerve.

Basic concepts: mandibular anesthesia, thorus anesthesia, mental anesthesia.

**Questions for the lesson:**

1. Features of infiltration anesthesia when removing teeth on the lower jaw.
2. The technique of performing mandibular anesthesia by palpation.
3. The technique of performing mandibular anesthesia by apodactyl method.
4. The technique of thorus anesthesia.
5. The technique of blocking the chin nerve.
6. The technique of blocking the lingual and buccal nerve.
7. The method of anesthesia according to Bershe-Dubov.
8. The technique of blocking the III branch of the trigeminal nerve at the oval opening.
9. Methods of performing intraligmental anesthesia.
10. The technique of intraseptal anesthesia.

**Questions for self-control:**

1. Name the features of infiltration anesthesia during surgical interventions on the lower jaw.
2. Specify the pain relief zone when performing mandibular anesthesia.
3. Specify the pain relief zone when performing thorus anesthesia.
4. List the indications for anesthesia according to Bershe-Dubov.

5. What are the advantages and disadvantages of conducting anesthesia techniques for surgical interventions in the lower jaw area.

**The practical part of the lesson:** performing various methods of local anesthesia during surgical interventions in the lower jaw area on phantoms.

### **Recommended literature:**

#### **Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp. 302 – 316.
2. Propaedeutics of surgical dentistry: textbook. stipend / T.N. Vladychenkova et al.; under the general Ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – p.89-106.
3. Surgical dentistry /Edited by T.G. Robustova. 3rd Ed., reprint. and additional.– M.: Medicine, 2003. – pp. 68-70, 80-89.
4. Surgical dentistry: textbook / Afanasyev V.V. et al.; under the general editorship of V.V. Afanasyev. – M.: GEOTAR – Media, 2010 – pp. 141 - 174.

#### **Additional literature:**

1. Rabinovich S.A. Modern technologies of local anesthesia in dentistry / S.A. Rabinovich. – M., 2000. – pp. 92-116.
2. Manual of surgical dentistry and maxillofacial surgery/ Edited by V.M. Bezrukov, T.G. Robustova. – 2nd Ed., reprint. and additional. – M.: Medicine, 2000. – Vol.1. – pp. 100-105, 106-107.
3. Grischuk S.F. Anesthesia in dentistry / S.F. Grischuk. – M.: LLC "Medical Information Agency", 1998. – pp. 52-56.

**Topic No. 6.** Local complications arising during local anesthesia on the upper jaw. Causes, diagnosis, treatment, prevention.

**The purpose of the lesson:** to learn the diagnosis, treatment and prevention of local complications arising from local anesthesia on the upper jaw. Objectives of the lesson: to study the etiology, pathogenesis, clinic, diagnosis and differential diagnosis of local complications arising from local anesthesia on the upper jaw.

**Basic concepts:** hematoma, bleeding, contracture of the mandible, ischemia, fainting, collapse, hypertensive crisis, anaphylactic shock, clinical death.

**Questions for the lesson:**

1. Local complications arising during infiltration anesthesia on the upper jaw (clinic, diagnosis, treatment, prevention).
2. Local complications arising during infra-orbital anesthesia (clinic, diagnosis, treatment, prevention).
3. Local complications arising during palatine anesthesia (clinic, diagnosis, treatment, prevention).
4. Local complications arising during incisor anesthesia (clinic, diagnosis, treatment, prevention).
5. Local complications arising during stem anesthesia on the upper jaw (clinic, diagnosis, treatment, prevention).

**Questions for self-control:**

1. What is the reason for the numbness of the pharyngeal tissues during mandibular anesthesia?
2. Specify therapeutic measures for the development of bleeding from the needle injection site during infiltration anesthesia.
3. Indicate the cause of nasal bleeding during incisor anesthesia.

**Practical part of the lesson:** working out methods of providing assistance to patients with local and general complications that arose during local anesthesia on the upper jaw on phantoms, filling out the medical card of a dental patient (form No. 043/y).

## **Recommended literature:**

### **Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp.295 – 316.
2. Propaedeutics of surgical dentistry: textbook. manual /  
T.N. Vladychenkova et al.; under the general ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – pp.107-128.
3. Surgical dentistry / Edited by T.G. Robustova. 3rd Ed., reprint. and additional– M.: Medicine, 2003. – pp. 76, 78-80, 87, 89-91.

### **Additional:**

1. Manual of surgical dentistry and maxillofacial surgery, edited by V.M. Bezrukov, T.G. Robustova. Ed. 2nd, reprint. and additional. – M.: Medicine, 2000. – Vol. 1. – pp. 13-23, 40-41.

**Topic No. 7.** Local complications that occur during local anesthesia on the lower jaw. Causes, diagnosis, treatment, prevention.

**The purpose of the lesson:** to learn the diagnosis, treatment and prevention of local complications arising from local anesthesia on the lower jaw. Objectives of the lesson: to study the etiology, pathogenesis, clinic, diagnosis and differential diagnosis of local complications arising from local anesthesia on the upper jaw.

**Basic concepts:** hematoma, bleeding, contracture of the mandible, ischemia, fainting, collapse, hypertensive crisis, anaphylactic shock, clinical death.

**Questions for the lesson:**

1. Local complications arising during infiltration anesthesia on the lower jaw (clinic, diagnosis, treatment, prevention).
2. Local complications arising during mandibular anesthesia (clinic, diagnosis, treatment, prevention).
3. Local complications arising during thorus anesthesia (clinic, diagnosis, treatment, prevention).
4. Local complications arising during mental anesthesia (clinic, diagnosis, treatment, prevention).
5. Local complications arising during anesthesia according to Bershe-Dubov (clinic, diagnosis, treatment, prevention).
6. Local, arising during stem anesthesia on the lower jaw (clinic, diagnosis, treatment, prevention).

**Questions for self-control:**

1. What is the reason for the numbness of the pharyngeal tissues during mandibular anesthesia?
2. Specify therapeutic measures for the development of bleeding from the needle injection site during infiltration anesthesia.
3. Complications arising during thorus anesthesia in the medial slope of the pterygoid-maxillary fold.

**Practical part of the lesson:** working out methods of providing assistance to patients with local and general complications that arose during local anesthesia on the upper jaw on phantoms, filling out the medical card of a dental patient (form No. 043/y).

**Recommended literature:**

**Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp.295 – 316.
2. Propaedeutics of surgical dentistry: textbook. stipend / T.N. Vladychenkova et al.; under the general ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – pp.107-128.
3. Surgical dentistry / Edited by T.G. Robustova. 3rd edition, reprint. and additional– M.: Medicine, 2003. – pp. 76, 78-80, 87, 89-91.

**Additional:**

1. Manual of surgical dentistry and maxillofacial surgery, edited by V.M. Bezrukov, T.G. Robustova. Ed. 2nd, reprint. and additional. – M.: Medicine, 2000. – Vol. 1. – pp. 13-23, 40-41.

**Topic No. 8.** Common complications that occur during local anesthesia. Causes, diagnosis, treatment, prevention.

**The purpose of the lesson:** to learn students, treatment and prevention of common complications arising from local anesthesia. Learn to diagnose and provide emergency care for urgent conditions, prevention of their development.

**The objectives of the lesson:** to teach students the etiology, pathogenesis, clinic, diagnosis and differential diagnosis of common complications arising from local anesthesia, the principles of emergency care.

**Basic concepts:** fainting, collapse, hypertensive crisis, anaphylactic shock, clinical death.

**Questions for the lesson:**

1. Causes, clinic, care and prevention of syncope in dental patients.
2. Causes, clinic, care and prevention of collapse.
3. Clinic, assistance and prevention of hypertensive crisis with local anesthesia in dental patients.
4. Causes, clinic of anaphylactic shock in patients with local anesthesia, assistance, prevention.
5. Causes, clinic of toxic reactions to anesthetic, assistance, prevention.
6. Causes, clinical death clinic, resuscitation measures.

**Questions for self-control:**

1. Clinical symptoms of abdominal anaphylactic shock.
2. To carry out differential diagnostics of toxic and allergic reactions.

The practical part of the lesson: working out methods of providing assistance in emergency conditions on phantoms, filling out the medical card of a dental patient (form No. 043/y).



## **Recommended literature:**

### **Main:**

1. Agapov V.S. Anesthesiology, resuscitation and intensive care in dentistry and maxillofacial surgery: textbook / V.S. Agapov, N.V. Yemelyanova, T.P. Shipkova. – M.: Medical Information Agency, 2005. – pp. 122-141.
2. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp.295 – 316.
3. Propaedeutics of surgical dentistry: textbook. manual /  
T.N. Vladychenkova et al.; under the general ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – pp.107-128.
4. Surgical dentistry / Edited by T.G. Robustova. 3rd edition, reprint. and additional– M.: Medicine, 2003. – pp. 76, 78-80, 87, 89-91.

### **Additional:**

1. Manual of surgical dentistry and maxillofacial surgery, edited by V.M. Bezrukov, T.G. Robustova. Ed. 2nd, reprint. and additional. – M.: Medicine, 2000. – Vol. 1. – pp. 13-23, 40-41.
2. Emergency conditions in outpatient dental practice: algorithmic guidance / P.I. Ivasenko et al. – N. Novgorod, 2000. - pp. 13-23, 40-41.
3. Stosh V.I. Guidelines for anesthesiology and emergency care in dentistry / V.I. Stosh, S.A. Rabinovich, E.V. Zoryan. – M.: MEDpress-inform, 2002. – pp. 116-171, 175-182, 195-210.

**Topic No. 9.** General anesthesia. Types of general anesthesia. Medications used for general anesthesia.

**The purpose of the lesson:** to learn the principles of choosing types of general anesthesia.

**Lesson objectives:** to study the types of general anesthesia.

Basic concepts: anesthesia, mask anesthesia, endotracheal anesthesia, intravenous anesthesia, intramuscular anesthesia, tracheal intubation.

**Questions for the lesson:**

1. Classification of types of general anesthesia.
2. Mask anesthesia. Characteristic. Indications and contraindications for use.
3. Medicines for mask anesthesia, their pharmacological characteristics.
4. Endotracheal anesthesia. Characteristic. Indications and contraindications for use.
5. Intravenous anesthesia. Characteristic. Indications and contraindications for use.
6. Drugs for intravenous anesthesia, their pharmacological characteristics.
7. Intramuscular anesthesia. Characteristic. Indications and contraindications for use.
8. Drugs for intramuscular anesthesia, their pharmacological characteristics.

**Questions for self-control.**

1. Mononarkosis, combined anesthesia.
2. Neuroleptanalgesia.

**Practical part of the lesson:** analysis of the lesson topic.

## **Recommended literature:**

### **Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp. 251 – 268.
2. Propaedeutics of surgical dentistry: studies. the manual of T.N. Vladychenkova et al.; under the general Ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – p.129-140.
3. Surgical dentistry /Edited by T.G. Robustova. 3rd Ed., reprint. and additional – M.: Medicine, 2003. – pp. 45-59
4. Surgical dentistry: textbook / Afanasyev V.V. et al.; under the general editorship of V.V. Afanasyev. – M.: GEOTAR – Media, 2010 – pp. 179 - 185.

### **Additional:**

1. Agapov V.S. Anesthesiology, resuscitation and intensive care in dentistry and maxillofacial surgery: textbook /V.S. Agapov, N.V. Yemelyanova, T.P. Shipkova. - M.: Medical Information Agency, 2005. – pp. 36-97, 122-162.
2. Emergency conditions in outpatient dental practice: algorithmic manual /P.I. Ivasenko et al. – N. Novgorod, 2000.
3. Manual of surgical dentistry and maxillofacial surgery/ Edited by V.M. Bezrukov, T.G. Robustova. 2nd Ed., reprint. and additional-M.: Medicine, 2000. – Vol. 1. – pp. 116-134.
4. Stosh V.I. Guidelines for anesthesiology and emergency care in dentistry / V.I. Stosh, S.A. Rabinovich, E.V. Zoryan. – M.: MEDpress-inform, 2002. – pp. 160-181.

**Topic No. 10.** General anesthesia. Indications and features of general anesthesia during operations on the face and in the oral cavity. Complications of anesthesia. Basics of resuscitation.

**The purpose of the lesson:** to learn the principles of general anesthesia, its complications, the basics of resuscitation.

**Objectives of the lesson:** to study the features of general anesthesia during surgical interventions on the face and oral cavity.

**Basic concepts:** anesthesia, mask anesthesia, endotracheal anesthesia, intravenous anesthesia, intramuscular anesthesia, tracheal intubation.

**Questions for the lesson:**

1. Features of general anesthesia during operations on the face and in the oral cavity.
2. Indications for general anesthesia in a dental clinic and hospital.
3. Contraindications to general anesthesia.
4. Preparation of the patient for general anesthesia.
5. Stages of anesthesia, their characteristics.
6. Observation of patients after general anesthesia.
7. Complications of anesthesia.
8. Principles of cardiopulmonary resuscitation.

**Questions for self-control.**

1. Name the features of endotracheal anesthesia in dental patients.
2. Features of general anesthesia in a dental clinic.

**Practical part of the lesson:** analysis of the lesson topic

## **Recommended literature:**

### **Main:**

1. Propaedeutic Dentistry Textbook / Edited by E.A. Bazikyan.-M.: GEOTAR – Media, 2009. – pp. 251 – 268.
2. Propaedeutics of surgical dentistry: studies. the manual of T.N. Vladychenkova et al.; under the general Ed. Prof. A.S. Zabelina. – Ed. 3rd, reprint. and additional – Smolensk, 2008. – p.129-140.
3. Surgical dentistry /Edited by T.G. Robustova. 3rd Ed., reprint. and additional – M.: Medicine, 2003. – pp. 45-59
4. Surgical dentistry: textbook / Afanasyev V.V. et al.; under the general editorship of V.V. Afanasyev. – M.: GEOTAR – Media, 2010 – pp. 179 - 185.

### **Additional:**

1. Agapov V.S. Anesthesiology, resuscitation and intensive care in dentistry and maxillofacial surgery: textbook /V.S. Agapov, N.V. Yemelyanova, T.P. Shipkova. - M.: Medical Information Agency, 2005. – pp. 36-97, 122-162.
2. Emergency conditions in outpatient dental practice: algorithmic manual /P.I. Ivasenko et al. – N. Novgorod, 2000.
3. Manual of surgical dentistry and maxillofacial surgery/ Edited by V.M. Bezrukov, T.G. Robustova. 2nd Ed., reprint. and additional-M.: Medicine, 2000. – Vol. 1. – pp. 116-134.
4. Stosh V.I. Guidelines for anesthesiology and emergency care in dentistry / V.I. Stosh, S.A. Rabinovich, E.V. Zoryan. – M.: MEDpress-inform, 2002. – pp. 160-181.