



ОҢТҰСТІК ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		 SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Chair "Introduction to the Clinic»		044 – 75 /11
Lecture complex on the discipline "Introduction to the clinic"		1 p. from 12

LECTURE COMPLEX

Name of the discipline:	Introduction to the Clinic
Code of the discipline:	IP - 2216
Name of EP:	6B10117 " Stomatology"
Volume of training hours/ Credits:	90 hrs (3 credits)
Course and semester of study:	2nd year III semester
Volume of lectures:	6 hours.

Shymkent-2023 y.


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The lecture complex of the discipline " Introduction to the Clinic " was developed in accordance with the working curriculum (syllabus) and discussed at a meeting of the department
 Protocount No_12____ from "_10____" _06_____2023

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Lecture № 1.

1. Topic: The main stages of the provision of first aid in a medical institution.

2. Purpose: Formation of students' understanding of the stages and importance of providing first aid at the level of medical institutions. Teaching students the skills of procedural work in various institutions, including in these offices, based on knowledge of the work of medical institutions.

3. Abstracts of the lecture:

Primary (pre-medical) care is a set of measures aimed at restoring or preserving the life and health of the victim, carried out by nurses. One of the most important rules of first aid is its urgency: the faster it is, the more hope for a favorable result. Therefore, such assistance can and should be provided in a timely manner by the person standing next to the victim.

Cases of first aid: lack of consciousness, respiratory and circulatory arrest, external bleeding, foreign bodies in the upper respiratory tract, injuries to various parts of the body, burns, high temperature, exposure to thermal radiation, freezing and other consequences of exposure to low temperature, poisoning

Signs of life in humans:

1. The presence of consciousness. It is determined by the presence of an answer to an irritant or question.
2. The presence of a pulse. It is determined on the neck, projection of the carotid artery.
3. The reaction of the pupil to light. It is detected when a beam of light is directed at the eye (there is a sharp constriction of the pupil).
4. The presence of breathing. It can be determined by the movements of the chest.
5. The presence of palpitations. It can be determined manually or with the help of the ear (ear) below the left nipple of the affected person's breast.

When providing first aid in a general sequence, the examination of the victim belongs to the most important section. It should always be checked first by checking the head and then watching, holding hands. This allows you to determine whether the skull has softened or cracked, the presence of hemorrhage. When examining the face, you should pay attention to its color. Pale, sweaty, with a cold face, closed eyes and open mouth proves that he is in a state of fainting. If the face is hot and red, it means a fever. Nosebleeds can be caused by damage to the skull, nasal bones, or blood vessels in the nose. If the nose is broken, it is easy to notice. Eye examination is performed to identify other bodies, wounds, the condition of enlarged pupils, and their reaction to light.


Along with the eye, the eardrum is examined, confirming the danger of trauma to the skull, hearing and fluid coming out of the ear are checked.

In the examination of the oral cavity, special attention is paid to the damage to the mouth, the color of the lips, the integrity of the teeth and the jawbones. A pale lip indicates heart deficiencies, while a moldy lip indicates a lack of oxygen. Liquid from the mouth, if it has a bloody color, indicates diseases of the internal organs, respiratory and digestive tract.

The neck is examined after removing the collar, and also check the integrity of the cervical spine, its functions, look for traces of violent murder on the neck.

The back of the victim should be laid inside or at the side for examination, and if possible, inspect with an encroachment on the back. In this process of work, places of damage to bones, soft tissues, places of concentration of the disease are identified. Particular attention should be paid to the position of the spine when examining the back.

Unlike the front of the chest, the integrity of the collarbones is checked by pressing on their middle part, and then the patient is asked to take a deep breath; If the rib and chest are not damaged, breathing becomes straight, painless, monotonous. After examining the upper chest, an

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examination of the abdomen and pelvis is performed. With a visual inspection of the arms and legs, a manual inspection is carried out at the same time in the presence of damage. They also check the motor function of the arms and legs, their integrity, sensitivity, the presence of deformity, the site of the wound, hemorrhage.

The examination allows you to determine the condition of the victim, determines the most damaged areas, establishes ways to provide first aid.

4. Illustrative material: presentation.

5. Literature: Appendices 1

6. Security questions (feedback):

- 1) What do you know about the state of health care in the Republic of Kazakhstan at the moment?
- 2) What are the stages of providing assistance in a medical organization?
- 3) What are the structural features of medical organizations?
- 4) What is the difference between assistance to patients in a pre-medical organization and assistance provided jointly with a doctor?

Lecture № 2

1. Topic: Organization of the work of the treatment room.

2. Purpose: To teach students to acquaint with the work of the treatment room.

3. Theses of the lecture:

The treatment room is an integral part of any medical institution. Here, the procedural nurse performs medical appointments, carries out medical and diagnostic manipulations as part of her functional duties. Equipping the treatment room, maintaining it in proper sanitary and hygienic condition, as well as the qualifications of the nurse of the treatment room, play an important role in ensuring the quality of patient care and preventing the spread of nosocomial infections.

The office may have features depending on which medical institution it belongs to: a hospital, a medical center or polyclinic, a surgical department or a therapeutic one.

In the treatment room, an aseptic, working and economic zone is allocated and the intersection of clean and dirty flows is excluded.

The treatment room should have a medical cabinet, a worker, 2 manipulation tables, a couch, a household refrigerator, two chairs, a table with a drawer for disinfectants.

Furniture must have moisture-resistant surfaces to be disinfected.

In the aseptic area there is a medical cabinet with medicines and sterile materials in the package and a manipulation table.

Sterile materials in the package should be stored on a separate shelf.


Medicines are placed in the cabinet in accordance with the requirements of the pharmaceutical order.

Box with sterile material and box prepared for sterilization are placed in different compartments of the cabinet.

On the manipulation table there are sterile styling with alcohol cotton balls and tweezers, infusion solutions and medicines to prepare for manipulation. The drawer of this table stores sterile packages with disposable syringes and infusion systems for the day of work.

In the working area, all manipulations are performed for the patient, and medical documentation is filled. In this area there is a couch, a refrigerator, a work table and a second manipulation table.

On the second manipulation table, tripods with test tubes for blood, an elbow roller and a tourniquet are placed. All medical documents are located on the desk of the procedural nurse.

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The refrigerator is designed for storage at a temperature of $+4^{\circ}\text{C}$ of medicinal and biological preparations. There should be a thermometer in the refrigerator

In the economic area there is a sink, a bedside table with disinfectants.

On the bedside table there are 3 containers with disinfectant solutions, a container for used masks and a container for used wipes. The bedside table contains a three-day supply of disinfectant, detergent, pemoxol, clean dry rags, measuring utensils, gloves for cleaning the room. Requirements for a nurse

The nurse must have a set of clothes for work in the treatment room, consisting of a white treatment gown or suit, cap. The change is made daily or as needed.

In the event of an emergency, a spare treatment gown should be installed in the office

To go beyond the boundaries of the department, it is necessary to change the robe.

It is unacceptable to wear woolen clothes.

A cap or disposable cap should cover all hair.

The mask should cover the nose and mouth. Do not lower the mask around your neck. Disposable masks are changed every two hours. Shoes should be comfortable to wear, do not make noise when walking, wash and disinfect.

Nails should be cut short, it is forbidden to cover nails with varnish. During work, it is necessary to remove all jewelry (rings, bracelets) and watches.

The skin of the hands should be healthy, soft, elastic. There should be no cracks, burrs. All skin defects should be treated with an antiseptic solution and covered with a band-aid or fingertip before starting work.

Any febrile condition, tonsillitis, pustular diseases, dyspeptic disorders exclude work in the treatment room until recovery.

4. Illustrative material: presentation.

5. Literature: Appendix 1

6. Security questions (feedback):

1. Can a nurse vaccinate patients on her own?
2. Rules for maintaining nursing documentation.
3. What are the responsibilities of a nurse in the absence of nosocomial infection?
4. What factors cause nosocomial infection?
5. What is the order of placement of medicines ?


Lecture № 3

1. Topic: Clinical research methods in dentistry. Special research methods in therapeutic dentistry.

2. Purpose: To educate the patient on the methods and rules of clinical examination at a dental appointment for the correct diagnosis, treatment methods.

3. Abstracts of the lecture:

Research methods in clinical dentistry include a survey of the patient, examination (both external and oral cavity), examination of the oral cavity and teeth, as well as perimaxillary soft tissues. It is generally accepted that the survey of the patient and the methods of objective examination, not related to the use of various kinds of laboratory and instrumental methods, are the main ones. These include questioning, probing, percussion, palpation. Methods based on the use of radiography, electroodontometry, laboratory and others are additional, since sometimes the diagnosis can be made without their use. In diseases of the mucous membrane and periodontium, special research methods and periodontal indices are used.

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Interviewing a patient in dentistry is one of the important stages of the patient's examination. It includes the collection of medical history, medical history, occupational history and allergic. Clarification of the history of the disease begins with the identification of the patient's complaints. The correct formulation of questions, attentive listening to the answers and analysis of information obtained from the words of the patient, help the doctor to draw up an optimal plan for the examination and treatment of the patient. The patient needs to ask leading questions and demand accurate, concise answers to them, but at the same time it is impossible to interrupt patient, and conduct a survey in the right direction. By questioning, determine the earliest manifestations of the disease, clarify its further course - increasing or decreasing pain. Sometimes complaints may be absent, which happens in the initial stages of caries, with chronic apical periodontitis in remission. Complaints about changes in the position, size and color of the teeth are characteristic of some non-carious lesions. Complaints about food jamming, aesthetically unsatisfactory condition of the tooth are of diagnostic value. When making a diagnosis and conducting a differential diagnosis, pain complaints play an important role. The symptom of pain accompanies most dental diseases of carious and non-carious origin, and is also observed in diseases of the periodontium and oral mucosa. Therefore, it is necessary to identify not only the cause and time of the onset of pain, but also its nature, duration, localization, the presence of irradiation, and the connection with food intake. Short-term pain caused by any one stimulus (chemical, thermal or mechanical) or all of them together, quickly passing after their elimination, it is noted with defects in the enamel and dentin of both carious and non-carious origin (loss of enamel and exposure of dentin during abrasion and abrasion, erosion). To make a diagnosis in dentistry, it is important to know what is the reason for the onset of the disease, to determine its earliest manifestations, their duration and development. It should be clarified what kind of treatment was carried out and his results, since treatment can change the symptoms and clinical course of the disease and thereby complicate the diagnosis. The anamnesis of the patient's life, as well as professional history, can help to identify the etiology of the disease, systemic diseases, occupational hazards (it is necessary to take into account the stack of work and the implementation of preventive measures to reduce the impact of certain occupational hazards). Improper lifestyle, poor hygienic dental care can cause this disease or aggravate its course. Equally important is the clarification allergic history. During the questioning, it is revealed what allergic reactions the patient has had in the past or are present, how he reacts to the introduction of serums, vaccines, medication and especially to the introduction of preparations for local anesthesia.

Additional methods:

- * Temperature diagnostics
- * Electroodontodiagnostics
- * Radiography
- * Apex location
- * Transillumination method
- * Method of vital dyeing of tissues

Temperature diagnostics: an old type of physical examination methods.

Indifferent zone for molars 17 - 22 ----- 50-55 degrees C


With caries and inflammation of tissues, it reacts to 5-7 degrees.

Necrotic tooth tissue has no effect on temperature.

Electroodontodiagnostics: determination of the electrical conductivity of tooth tissues

The tissue of a healthy tooth reacts to a current of 2 - 6 μ A.

Electrical conductivity above 20 μ A pulpitis

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EDI above 60 μ A necrosis of vascular tissues

Eod above 100 μ A is dead root tissue.

X-ray examination:

- * Often used in dental clinic:
- * Contact radiography near the focus of the oral cavity
- * Orthopantomography

X-ray capabilities:

- * Detection of a closed carious cavity
- * Determination of the degree of conductivity of the root canal
- * Determination of the duration of the root canal
- * Quality control of root canal obturation
- * Assessment of the condition of the tip of the fabric
- * Assessment of the condition of the jaw tissues.

4. Illustrative material: presentation.

5. References: Appendix 1

6. Security questions (feedback):

1. Methods of clinical research in dentistry.
2. What are the additional methods of clinical research?
3. With special research methods in therapeutic dentistry.
4. Genetic research.

Lecture № 4.

1. Topic: Dental caries. Prevention and methods of local prevention.

2. Purpose: To teach students methods of local prevention and types of prevention in dental caries.

3. Abstracts of the lecture:

Dental caries is the process of demineralization and destruction of the hard tissues of the tooth with the formation of a cavity defect. It is characterized by the appearance of a yellowish-brown pigment spot on the enamel, bad breath, the reaction of the tooth to sour, sweet, cold or hot food, aching pain. With the development of deep caries, the formation of cysts, the addition of pulpitis, and then periodontitis is possible. Neglected caries can lead to tooth loss. The presence of unsanitized carious cavities increases the risk of developing acute and chronic diseases of the body.


The causes of caries are reduced to two etiological factors:

Common factors:

1. Malnutrition and diet. The lack of a whole complex of vitamins and minerals leads to disorganization of the tooth structure. At the same time, a huge role is played by the pathological effects of easily digestible carbohydrates, the nature and diet, as well as the fluoride content in drinking water.
2. Somatic diseases directly related to the development and formation of the tooth and its elements, which can cause functional and structural changes.
3. The influence of damaging environmental factors that affect the macroorganism extremely (overheating, frostbite, etc.).
4. Hereditary factors associated with the full formation of the structure and chemical composition of tooth tissues.

Local factors:

5. Plaque rich in microorganisms.

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6. The impact of the composition of the oral fluid, which can change as a result of various diseases.
7. The consistency of local defense mechanisms of tooth tissues, their resistance (stability).
8. The condition of the pulp - the connective tissue that fills the cavity of the teeth.
9. Normal laying and maturation of the dentoalveolar system.
10. Deviations in the biochemical composition of tooth tissues.

Symptoms of tooth decay

Depending on the depth of damage to the hard tissues of the tooth, 4 forms of caries are distinguished.

At the stage of a carious spot, the tooth enamel becomes cloudy. There is no visible destruction of the hard tissues of the tooth, instrumental examination with a probe is uninformative, since at this stage there are still no signs of a change in the structure of the hard tissues of the tooth. Sometimes regression of the spot is possible, the causes of this phenomenon have not been clarified, but dentists associate self-healing with the activation of the immune system.

The second form of tooth decay is superficial caries. Dark pigmentation appears on the surface of the tooth, during an instrumental examination in the pigmentation zone, softening of the enamel is detected. Sometimes, already at the stage of superficial caries, all layers of tooth enamel are involved in the destructive process. But usually the defect is limited and does not go beyond the enamel. A carious lesion looks like a dirty gray or brown spot with a rough bottom.

With medium caries, enamel and dentin tissues are affected.

With deep caries, there is a complete defeat of all tissues of the tooth, up to the complete destruction of the tooth. Subjective sensations depend on the depth of the lesion and the severity of the course of caries. Usually, patients complain of acute pain when sour, sweet or cold food comes into contact with the affected surface or into the carious cavity. With the elimination of the irritating factor, acute toothache subsides, as a rule, spontaneous pain in caries does not happen.

Means and types of caries prevention

Modern science, with the correct use of prophylactic agents, guarantees the prevention of the development of caries in more than 95% of cases. Dentists distinguish several types of prevention of dental caries:

- Primary, the methods of which are aimed at healthy teeth in order to prevent the development of their disease.
- Secondary, the purpose of which is to treat existing caries and prevent its complications.
- Tertiary, the main tasks of which are to restore the integrity of the teeth and their functions.

In addition, all methods of prevention are divided into two large groups: general and local.

General methods of caries prevention


These methods are aimed at the entire human body as a whole and include activities:

- Proper and rational nutrition.
- Strengthening the immune defense by hardening, taking immunostimulants.
- Reducing the effects of stress.
- Taking fluoride, calcium, vitamins.

Local methods for the prevention of tooth decay

Means for local prophylaxis are applied directly to the teeth and oral cavity:

- Thorough and regular oral hygiene.
- Reducing the amount of carbohydrates and acids in the diet.

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- Use of fluoride-containing preparations and remineralizing agents for rinses or applications.
- Fissure sealing.

4. Illustrative material: presentation.

5. Literatura: Appendix 1

6. Security questions (feedback):

1. What is dental caries?
2. What are the ways to prevent dental caries?
3. What are the methods of local prevention?
4. Types of hard tooth tissues depending on the depth of damage.

Lecture № 5

1. Topic: Diagnosis and first aid for hypoglycemia and hyperglycemia.

2. Purpose: to determine the difference between hypoglycemia and hyperglycemia and their clinical manifestations, to teach how to prepare the patient for research methods.

3. Theses of the lecture:

Hyperglycemia is a medical term that is used to refer to high blood sugar. Sugar levels are normally regulated by the hormone insulin. In diabetes mellitus, insulin is not produced in the proper amount. So, maintaining blood sugar levels within normal limits is the main task of treatment. Hyperglycemia in diabetics can be caused by excessive and unhealthy diet, insufficient physical activity, skipping the next insulin administration or taking hypoglycemic drugs, stress, infectious diseases and even menstruation.

Hypoglycemia is a medical term that means low blood sugar. This condition occurs only in patients receiving hypoglycemic drugs (insulin or hypoglycemic tablets), and is a complication of not the disease, but treatment.

The reasons for lowering blood sugar can be very different: skipping meals, excessive physical exertion, alcohol intake, stressful situation, etc.

An experienced diabetic usually feels the onset of hyperglycemia by symptoms such as increased thirst, frequent urination, fatigue and fatigue, increased appetite, blurred vision and goosebumps, headache, decreased concentration, dry skin, irritability. The occurrence of one or more of these symptoms may indicate the development of hyperglycemia. Don't ignore these symptoms. This is how your body tries to report the approach of danger.


An attack of hypoglycemia can occur very quickly and, in the absence of timely measures, even lead to loss of consciousness. Often, diabetics feel the approach of an attack and manage to prevent its onset in time. A harbinger may be confusion, trembling, sweating, chills, blurred vision, headache, weakness, difficulty speaking, numbness of the lips. But sometimes hypoglycemia is asymptomatic, which is why it is so important to regularly monitor blood sugar levels.

Medical care for hypoglycemia and hyperglycemia.

The most reliable way to check your suspicions is to do a blood sugar test. To date, there is a large selection of different blood glucose meters for determining blood sugar at home. If, despite compliance with the prescribed therapy, on several tests in a row or on two or more tests during the day, you have hyperglycemia, you should consult your doctor.

With increased physical exertion, during illness, in case of stress and any unusual situations, it is necessary to do additional tests.

For the treatment of hypoglycemia, it is necessary to take one of the following products:

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1 sachet (200 ml) of fruit juice (grape or apple) or other sweet drink;
 you can simply dissolve 4 teaspoons of sugar in half a cup of water;
 a tablespoon of honey;
 4 lumps of sugar or a glucose tablet (15 g.);
 3-5 candies (sucking).

After 5-10 minutes, you need to measure blood sugar again and, if the condition has not improved, eat something sweet again. Always carry a bag of juice or candy with you. An attack can begin suddenly, and it is better to be prepared for it in advance.

To provide first aid for hyperglycemia, it is recommended to do the following:

If the glucose concentration is above 14 mmol/L, it is recommended to take immediate insulin (about two units). Do not use large doses. The next injection should be given a few hours after the first injection;

Saturate the body with vitamins, carbohydrates and proteins. These elements restore the acid-base balance. With the help of soda solution and mineral water. If, after the measures taken, a person does not feel well, emergency care is urgently needed.

4. Illustrative material: presentation.

5. Literatura: Appendix 1

6. Security questions (feedback):

1. What is hyperglycemia?
2. What is hypoglycemia?
3. What is a blood glucose meter?
4. Name the technique of using the meter.
5. What are the features of the patient's preparation for diagnostic methods.

Lecture № 6

1. Topic: Preparing the patient for instrumental research methods.

2. Purpose: to give an idea of the patient's preparation, or to prepare the patient for instrumental research methods.

3. Abstracts of the lecture:

Patient examination methods are clinical research methods used to recognize a specific disease, identify various symptoms of the disease, and identify changes in the body.


General principles of preparing a patient for instrumental studies

1. Inform the patient, obtain consent (sometimes written)
 2. Conduct psychological preparation: Inform about the purpose and importance of the study Explain the course of the upcoming study, subjective feelings during its conduct Explain the importance of preparing for the study Assure of painlessness and safety
 3. Carry out, if necessary, the preparation of the organ to make it available for study (diet, preliminary emptying of contents, etc.)
 4. Issue a referral
 5. Monitor the preparation of the patient
 6. Accompany (transport) the patient to the study
- In the future:
1. Conduct (t) the patient after the study
 2. Monitor the patient after the study
 3. Document the implementation of the implementation

Types of the most common instrumental studies

1. Methods of radiation diagnostics: X-ray Radioisotope Ultrasonic
 2. Functional
 3. Endoscopic
- Methods of endoscopic examination

Bronchoscopy - with the help of a bronchoscope apparatus, the larynx and bronchial sections are examined: you can see the mucous membrane, the place of blood flow, the tumor.

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Esophagoscopy is an examination in which you can see the mucous membrane of the esophagus, its changes, swelling, bleeding with the help of an esophagoscope apparatus.

Fibrogastroscopy is a technique in which the stomach and duodenum are examined with a gastroscope instrument. Visually reveals the mucous membrane of the stomach, ulcers, tumors.

Colonoscopy - detects changes in the salivary layer of the lower colon using a colonoscope machine. Before manipulation, be sure to clean the colon.

Sigmoidoscopy is a method of examining the mucous membrane of the rectum and sigmoid colon using a rectoscope (visualizes changes in the inner layer of the cream, wound, tumor, place of blood flow, etc.).

Cystoscopy is a method of examining the bladder with a cystoscope. In addition to the inner layer of the bladder, the numbers by which urine enters the bladder are visible, its function is determined.

Ultrasound (Latin ultra-extreme, over and sound) is elastic waves with a frequency above 20 kHz that are inaudible to the human ear.

Ultrasound, on the other hand, is widely used in physical and technological methods. People can hear and perceive these sounds with the help of special tools.

The main feature of ultrasonic waves is that they can be directed so that they propagate in a specific direction from the sound source.

There are 3 ultrasound methods common in the clinic:

1. One-dimensional examination (ultrasound)
2. Two-dimensional examination (scanning, sonography)
3. Dopplerography.

Electrocardiography is an examination method that determines the work of the heart using an electric current. Various biochemical lectures take place in the myocardium. This causes the passage of ions through the membranes of cardiomyocytes. As a result, a bioelectric lecture is observed—the electromotive cardiac force draws an electrocardiogram (ECG). An ECG is taken from different areas of the body. We currently know of 12 different combinations of ECG electrodes.

Methods of X-ray diagnostics

1. The main methods are radiography and fluoroscopy.
2. Tomography (layer examination) - tomography and computed tomography.
3. Fluorography
4. Methods of contrast research
5. Interventional radiology

4. Illustrative material: presentation.


5. Literatura: Appendix 1

6. Security questions (feedback):

- 1) How are patients prepared for instrumental methods?
- 2) Types of instrumental studies?
- 3) What are the methods of endoscopic examination?
- 4) How is the patient prepared for an ECG?

Annex 1

Main:

<p>ОҢТҮСТІК ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ</p>		<p>SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»</p>
Chair "Introduction to the Clinic»		044 – 75 /11
Lecture complex on the discipline "Introduction to the clinic"		1 p. from 12

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