

МЕЖНАЦИОНАЛЬНАЯ ПСИХОФИЗИОЛОГИЧЕСКАЯ АССОЦИАЦИЯ
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«созидание», «творчество», «субъектность»
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Short message

MEDICAL AND SOCIAL REHABILITATION OF MILITARY SERVICEMEN USING DIGITAL TECHNOLOGIES

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Abstract. Medical and social support for SVO participants is a set of measures that are aimed at providing not only medical, but also social assistance to this category of citizens. The article analyzes the main methods of medical and social rehabilitation of military personnel (medication, socio-psychological, physiotherapeutic, psychophysiological). The main directions in organizing rehabilitation activities for military personnel are highlighted, the principles, tasks and stages of medical and psychological rehabilitation are reflected, as well as indications for its implementation. Medical and social rehabilitation of SVO participants includes a comprehensive impact on the health and social situation of these people in order to provide them with the opportunity to recover and successfully embark on the path of civilian life.

Key words: medical and psychological rehabilitation, social adaptation, military personnel, digital educational ecosystem.

Ключевые слова: медико-психологическая реабилитация, социальная адаптация, военнослужащие, цифровая образовательная экосистема.

Medical and social rehabilitation of SVO participants is an important component of the process of recovery and integration of these people into society after completion of service. The main goal of medical and social rehabilitation is to assist SVO participants in restoring physical and psychological health, as well as ensuring their social adaptation and inclusion in society. Medical and social rehabilitation includes the following activities:

1. Conducting a socio-medical examination to determine the category of SVO participants and establish the necessary support measures for them.
2. Physical rehabilitation is medical treatment and rehabilitation measures to restore the health and functional capabilities of the participants of the SVO (this is not only medical manipulations, physiotherapeutic procedures, rehabilitation exercises, massage, but also the provision of medications and medical equipment, as well as access to medical services).
3. Psychological rehabilitation – support for SVO participants in overcoming post-traumatic stress disorder, depression, anxiety and other psychological problems resulting from participation in hostilities.
4. Social adaptation is the conduct of various programs and activities to help SVO participants return to society and successfully adapt to civilian life. This may include employment, vocational retraining, educational assistance, housing support and other social services.

5. Legal support – consists of consultation and assistance to SVO participants in resolving legal issues related to the status of a veteran, receiving compensation and benefits (social benefits), as well as protecting their rights and interests.

6. Interaction with other organizations and government agencies to ensure full medical and social support for SVO participants.

The purpose of this article is to analyze the main methods of medical rehabilitation and social adaptation of military personnel of the Northern Military District. In order to alleviate some of the existing and predicted problems among military personnel of the Northern Military District, a comprehensive state program is needed for the social protection of military personnel and persons discharged from military service in matters related to the adaptation of this category to a different social environment. That is, the problem of social adaptation of military personnel wants to remain more perfect and meet, on the one hand, the modern requirements of the digital transformation of society and the state of industrial enterprises, and on the other hand, the level of qualifications and knowledge, professional orientation of military personnel of the contract service of the RF Armed Forces.

Medical rehabilitation, as defined by the WHO expert committee in 1980, is an active process, the goal of which is to achieve complete restoration of functions impaired due to disease or injury, or (if this is not possible) - optimal realization of the physical, mental and social potential of a disabled person, adequate integration of his in society. Currently, the concept of medical rehabilitation applies not only to the disabled, but also to many categories of the wounded and sick. Rehabilitation, or restorative treatment, is one of the advanced areas of modern medicine, increasing its social significance. Although the basic concepts and principles of rehabilitation have not yet been established, it can be assumed that all patients with a favorable prognosis for the disease need rehabilitation to one degree or another. The basic concept of rehabilitation is the biopsychosocial model of normal and pathological human conditions that originally emerged in the depths of psychiatry.

Rehabilitation methods are divided into: medications, physiotherapeutic, psychological (socio-psychological) and psychophysiological, based on modern computer technologies.

Currently, methods of medical and psychological rehabilitation based on information (computer) technologies are particularly promising and dynamic in development. These methods can be divided into existing (tested) and promising. The first include those based on the interaction of the patient with a computer: computerized mental self-regulation, computerized biofeedback systems. The second group consists of methods based on immersing the patient in virtual environments.

The biofeedback method, which has long been used in psychiatry and neurology, has proven itself well. At its core, biofeedback is hardware-mediated mental self-regulation. The patient, through an external feedback circuit organized using microprocessor or computer technology, is presented with information about the state and changes in his own physiological processes (temperature and skin resistance, heart rate, blood pressure, respiratory rate, muscle tone, EEG, etc.). The method is based on the discovery by J. Kamiya (1968) of the ability of subjects to voluntarily change the parameters of their electroencephalogram in the presence of feedback (visual or auditory) about their current values. Using this method, a person first acquires the skills of self-regulation of physiological functions, and then these skills are transferred to the area of mental functions. In the medical and psychological rehabilitation of military personnel, the biofeedback method can be considered one of the priorities.

Virtual reality, artificial reality, electronic reality, computer model of reality (eng. virtual reality, VR) is a world created by technical means (objects and subjects), transmitted to a person through his senses: vision, hearing, smell, touch and others. Currently, virtual environments are used mainly for gaming purposes, but research has already been carried out on their applicability for vocational training purposes. Virtual reality therapy (VRT, VRIT, SFT), also known as virtual

reality immersion therapy (VRIT), simulation therapy (SFT), virtual reality exposure therapy (VRET) is currently one of the effective methods of rehabilitation for patients with post-traumatic personality disorder. The prospect of introducing brain-computer interfaces seems more distant. This area is also of interest to mental health professionals and deserves scientific research.

Following the development of modern technologies, there is a need to involve the latest adaptation programs in the process of various types of human activities and everyday life. One of the possible options for chronopsychotic prevention, to maintain a normal psycho-emotional state, is the computer program “Sun-075”, created by a scientific team under the leadership of Dr. psychol. Sciences I.A. Voronov. A program aimed at adapting the human psychosomatic system to the planetary circannual (circa-annual) solar rhythm for the current day. Psychophysical movements of discrete muscle groups are performed from any body position (i.e., the program can be mastered from the first days of hospitalization), ensuring its free and safe implementation. When performing movements, it is necessary to concentrate attention, i.e. a combination of motor and mental activity is necessary. This process includes the ideomotor representation of the movement itself, an image, or an associative series, and introspection, and many others. etc. Therefore, as a rule, exercises are performed at a slower pace.

The relevance of using computer systems in adaptation is due to the fact that computer programs have a number of objective advantages. First of all, it is the speed of data processing. The second advantage is efficiency. And the undoubted advantage of computer trainers is the fact that in the modern world, with a lack of time and money, people do not always have the opportunity to visit stationary clubs and training rooms.

At the final stage of medical and psychological rehabilitation, individual recommendations regarding the nature, volume and intensity of mental and physical stress, optimal types of professional activity for him and realistically achievable life goals, which are reflected in the relevant medical documentation, are formed and communicated to each soldier. Creative implementation of rehabilitation technologies, a combination of traditional and innovative methods will make it possible to fully implement the Interdepartmental State Program “Rehabilitation of military personnel, citizens discharged from military service and law enforcement officers injured while performing tasks in combat conditions and during counter-terrorism operations.”

In addition, military personnel serving on a contract basis have the right to receive not only additional professional education, but also retraining during the period of service. And here the possibilities of distance learning are absolutely necessary; if we take into account the potential of digital psychological and rehabilitation measures, then a comprehensive solution will yield tangible results in the social adaptation of military personnel to civilian service.

Particular attention should be paid to professionally formed, with a high degree of qualifications and level of education, command staff of the RF Armed Forces, who are transferred to the reserve after many years of military service. The vast majority of officers have a fairly high level of intellectual development, general education and practical experience, and their claims to leadership work are well founded. However, in the new circumstances of their life, it is very difficult for them to rely on their existing potential in order to work effectively in peaceful life. Professional military leaders, as a rule, do not prepare for civil service taking into account the requirements of industrial high-tech enterprises and scientific institutions, which predicts a problem when choosing professional employment in civilian life, so special psychological business training is needed here.

A study of the existing experience in retraining reserve officers indicates that they are poorly focused on active individual personal development and socio-psychological improvement, and the existing system of training in business management is of a general theoretical nature and does not have a clear focus on the formation of new skills and abilities necessary manager in modern conditions. But in addition to retraining reserve officers in economic skills, they can obtain qualifications to work in high-tech enterprises, as well as in scientific and research institutions.

The uniqueness of today's situation lies in the fact that ensuring the quality of additional professional education, professional retraining, on the one hand, and the accelerated development of priority and high-tech sectors of science and production, on the other hand, are possible only by combining the efforts, intellectual potential and resources of universities, academic and industrial science, as well as high-tech industrial enterprises. In turn, professional training, retraining of personnel discharged from military service and their placement in high-tech enterprises and scientific and research institutions is a solution to one of the most important tasks of social protection of military personnel.

The development of the formation and development of effective educational technologies based on modeling an information system using modern information and computer technologies determines the research and development of appropriate algorithmic and software. At the same time, it is important to take into account modern trends in the development of the educational process, in which the main emphasis is on increasing the efficiency of the educational process.

When developing a strategy for conducting educational activities in the conditions of distance education technology, it is necessary to carry out work on the formation of appropriate specialties and specializations. In addition, procedures for testing the knowledge that specialists in a given specialty and specialization must have must be determined. An important place in determining the strategy for the development of educational activities in the context of distance education technology should be given to providing an appropriate technical base and developing the necessary software package, taking into account the conditions and specifics of a particular educational institution and student population. Formation of a training course. When organizing a training course, an important place is assigned to the tutor - the developer of educational material for each discipline included in a given specialty and specialization.

Thus, today it is necessary to adapt the vocational education system to the needs of the digital economy, which is associated with a deep modernization of the educational process designed to prepare a person for life in a digital society and professional activity in a digital economy.

To solve all the assigned tasks, the "Concept of an adaptive-digital ecosystem of an educational institution" was developed and implemented, which was tested at the St. Petersburg State Budgetary Professional Educational Institution "Radio Engineering College" and the Autonomous Non-Profit Organization of Higher Education (ANO VO) "Smolny Institute" (2015-2020). As part of the project, the platform for blended learning EJ-IK was recommended by the Science Committee of St. Petersburg for implementation in the secondary vocational education system (SVE) as the best innovative project of 2015. The novelty of the research is associated with the search for full (interactive) personalization of the educational process, based on the construction of individual educational trajectories and continuous personalized monitoring of students' educational achievements, their personal and professional development, the result of which is the creation of a student's digital portfolio.

The object of the study was: an adaptive model of distance and "blended" learning, aimed at automated personalized adjustment of the digital educational process, taking into account the individual characteristics of the student, as well as taking into account his psychophysiological state.

Subject of the study: features of the implementation of the model of distance and "blended" learning in the HE (Higher Education) system and its impact on the quality and effectiveness of training, taking into account the individual characteristics of the student.

The goal was set: the creation and implementation of an organizational and methodological model of distance and "blended" learning for the HE system (SVE) in the conditions of restructuring of education, taking into account the tasks of the digital economy.

Thus, a single flexible organizational and methodological tool has been created for the implementation of distance and "blended" learning in the HE system (SVE) for the implementation

of continuous professional training of students in the digital economy, where the personal and professional achievements of students become the main priority.

In conclusion, we can say that medical and social support for SVO participants is a set of measures that are aimed at providing not only medical, but also social assistance to this category of citizens. The goal of medical and social support is to ensure maximum comfort and improve the quality of life of SVO participants, as well as stimulate their involvement in social life and self-realization. This article was dedicated to this goal.

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DIGITAL TRANSFORMATION OF THE HEALTHCARE SYSTEM

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Abstract. Recent years have seen rapid growth in the use of information and communications technologies to improve health care delivery, improve the efficiency of health systems and improve the management of health care facilities. The use of information and communication technologies in health, defined as e-health or digital health, can help strengthen health systems and improve the quality, safety and accessibility of health care. With the COVID-19 pandemic, this trend has become even more pronounced. The pandemic has shown that digital health can play a critical role in achieving universal health coverage and building the capacity of health workers.

Keywords: healthcare, medical care, electronic and digital healthcare, information and communication technologies, medical information systems.

DIGITAL TRANSFORMATION OF THE HEALTHCARE SYSTEM

20 years ago, in 2002, humanity entered a new phase of development – the digital era began. Such an exact date is being determined because for the first time the amount of digital information exceeded the amount of information on analogue media, and if in 2002 this ratio was 50/50, then already in 2007 it was 94% in digital form versus 6% on analogue media. The above classical scheme, proposed by Professor M. Hilbert in 2011, today, even for an unprepared reader, already looks a little outdated from the point of view of digital media (cloud technologies are probably included in the “other”, since the term itself was established in 2007 ., although the first patent for cloud data storage was received back in 1994), and in terms of large numbers: from exabytes (10¹⁸ bytes) we moved to zettabytes (10²¹ bytes). According to Statista, humanity produced 64.2 zettabytes of stored information in 2020 (4.6 zettabytes in 2014). And by 2025, growth is projected to 180 zettabytes. Thus, in recent years there has been a rapid increase in the use of information and communication technologies (ICTs) to improve the delivery of health care, improve the efficiency of health systems and improve the management of health care facilities. The use of ICT in health, defined as e-health or digital health, can also help strengthen health systems and improve the quality, safety and accessibility of health care [1-3]. With the COVID-19 pandemic, this trend has become even more pronounced. The pandemic has shown that digital health can play a critical role in achieving universal health coverage and building the capacity of health workers [8].

The process of introducing information technology into healthcare is associated with the emergence of medical information systems (MIS). They allow medical organizations to create an electronic document flow, which includes medical records, coupons, prescriptions, images, test results, etc. MIS also allow the accumulation of large databases about patients, which facilitates faster decision-making in terms of diagnosis and treatment and makes the provision of medical services more patient-oriented [9-10].

The World Health Organization (WHO) has invested significant resources over the years in strengthening digital health research and its successful development. In 2008, WHO developed its own approach to international eHealth monitoring (Scott & Saeed, 2008). This approach was most recently used in the 2015 Global eHealth Survey. WHO has also published tools for mobile health (mHealth) assessment and planning and guidelines for monitoring and evaluating digital health interventions. In 2019, the Pan American Health Organization (PAHO) and the Brazilian Network Information Center (NIC.br) published methodological guidelines and case studies on measuring digital health development. Recent WHO activities have focused on helping countries assess the maturity of their digital health development projects. In the WHO Region of the Americas, the Information Systems Maturity Assessment Tool for Health (IS4H-MM) initiative provides a method, tool and questions to assess organizational capacity related to

governance, data governance and digital transformation. , innovation and data systems management. The WHO European Region has developed a support tool for strengthening HIS, which includes guidance on assessing the completeness of HIS implementation and subsequently developing a HIS strategy [4].

The digital transformation of the Russian healthcare system began in 2011, when regional programs for its modernization were launched. The concept of creating a unified state information system in the field of health care was approved by Order of the Ministry of Health of Russia dated April 28, 2011 No. 364 “On approval of the Concept of creating a unified state information system in the field of health care” [5-6]. At the first stage, the tasks of creating infrastructure and equipping medical organizations with computers were solved. Currently, the digitalization of healthcare is carried out within the framework of the federal project “Creation of a unified digital circuit in healthcare based on a unified state information system in the field of healthcare (Uniform State Health Information System)” [5]. Within the framework of this federal project, the main objectives are to digitize key healthcare processes, create modern online services for citizens and doctors, and increase the efficiency of the healthcare system as a whole.

The Department of Informatization was created within the structure of the Russian Ministry of Health back in 2008. By order of the minister at the end of 2018, the position of his deputy was introduced, overseeing the digitalization of healthcare. Currently, the IT department of the Russian Ministry of Health includes the following divisions:

1. Department of Digital Development and Information Technologies of the Ministry of Health (DCRiIT)
2. Department of technical support for public authorities of the Federal State Budgetary Institution «Federal Resource Center for Informatization and Technological Development» (FGBU «FRS»).
3. Competence Center for Digital Transformation of the Healthcare Sector on the basis of the Central Research Institute for Organization of Healthcare Informatization of the Ministry of Health of Russia.

About 31% of countries in the world, according to WHO analytics, provide government incentives for the implementation of electronic medical records, and Russia is part of this advanced minority. Since 2011, the project of the Unified State Information System in the field of healthcare (Uniform State Health Information System) has been developing [5]. This is a colossal federal investment, infrastructure has been created, a huge number of computers have been purchased, local computer networks have been created, our territory is huge, and the needs correspond, huge resources have been invested in information security and medical software. For example, according to such an indicator as the share of medical organizations that have implemented a system for maintaining electronic medical records, at the end of 2021, Russia reached the level of 90% throughout the country. The US has the best rate in the world – 98%. There is no 100% anywhere, and many countries are only at the very beginning of this path, but despite such successes, we still have a small digital healthcare market – 0.1-0.2% of the global one. Globally, China, the UK and the USA are still leading. In Russia there are traditionally good ideas, systems are being successfully created, but the entrepreneurial foundation is still weak. An unresolved issue remains the lack of systematic monitoring and research to identify factors that may facilitate or hinder the adoption and use of digital health. Information obtained from such monitoring can be used as strategic information for policy-making, research, resource allocation and decision-making.

The Global eHealth Methodology Survey was developed by the WHO Global Health Observatory in consultation with various strategic partners on the tools and specific actions needed to promote and successfully develop digital health at national, regional and global levels [7]. The first survey study was in 2005, and it was later expanded to include questions about ensuring electronic health record (EHR) privacy through legal and regulatory tools. The third study, conducted in 2015, examined changes in eHealth and its role in achieving universal health coverage. The study consisted of eight thematic sections, each offering a different perspective on the contribution of digital health to achieving universal health coverage. One of the sections was the “Big Data” section.

The term “big data” was coined in 2008 by Clifford Lynch, editor of the journal Nature, who in his article summarized the previously scattered literature on the volume, growth of this volume and the variety of data being processed. And for the first time, the paradigm of a possible leap from the simple accumulation of large amounts of information to their high-quality processing was voiced. Before 2009, the term “big data” existed mainly in academia as a subject of scientific research into the growth and diversity of data. At the moment, they are used in almost all areas where the analysis of large and heterogeneous volumes of information with the construction of non-obvious dependencies between them is required [9]. Healthcare is a classic source of big data, since huge volumes of heterogeneous information are constantly accumulated: medical histories, test results and other diagnostics. Globally, it is estimated that more than a third of all stored data is medical information, and the volume of medical data will only grow. One example of such applications of big data is the Unified Register Platform of Research Institutes of Healthcare Organizations and Medical Management, into which hundreds of organizations enter information about themselves and their patients on a daily basis. The latest research tools have been further developed and formed the basis for the development of the Digital Health Action Plan for the WHO European Region 2023-2030, and have also been used to shape the digital health innovation agenda in the region. The revised version of the study consists of three main sections and 12 subsections (parameters) [2-3].

In Russia today, a national e-health/digital health policy has been formulated and an implementation and monitoring strategy has been developed. The digital healthcare strategy in Russia is aimed at providing citizens with permanent electronic access to their medical data. However, the goal is not only to track the extent of digital technology use, but also to understand why digital tools and services may not be used and how best to promote their use.

Differences in the structure and manner of organizing primary and emergency health care, the degree of decentralization, the mix of private and public health organizations and services, and the scale of organizations offering services may influence the choice of eHealth/digital health performance indicators [5].

The COVID-19 pandemic has highlighted the urgent need for greater collaboration among healthcare professionals, the use of new technologies and data analysis. Digital technologies can be used at several stages of this interaction: delivery of care, assistance in analyzing patient risks, prognosis and decision-making about medical care; short-term planning, for example, in organizing teams and resources, and in hospital management; long-term planning, for example, in evaluating government policies and strategies [8]. Technologies such as cloud computing, big data analytics, artificial intelligence and robotics are driving process transformation and expansion of digital health [9].

There is growing interest in the concept of digital health maturity, which provides a framework for coordinating digital activities to achieve a variety of goals, including improving population health outcomes, guiding resource allocation and controlling costs, enhancing the patient experience, and improving the health care worker experience. However, to assess digital maturity in relation to these complex goals, there is a need for new eHealth/Digital Health frameworks and performance indicators. It is important to recognize that digital health tools used to strengthen health systems at all levels of care are also potential sources of data for measuring and monitoring digital health maturity indicators, including impact on care delivery, quality improvement, health professional development, and risk management [7]. In addition, in addition to solving administrative, legal and technical problems, the personnel issue must also be resolved: the industry will require qualified specialists capable of working at the intersection of medical and information technologies. Today there are practically none and no educational programs have been developed on how to prepare them.

Today, the country has developed two conceptually different approaches to the digitalization of healthcare. There is a so-called decentralized approach. It implies that each clinic is unique, only the chief physician can decide which software product to choose, tailoring it to his processes as much as possible. Then they connect all these clinics through certain services to obtain a common data bank of these clinics. St. Petersburg followed this path; today it is the largest decentralized project in Russia. Its complete antagonist is the centralized approach implemented in Moscow - a single software product that is being implemented throughout a very large network of medical organizations. Due to this, the product develops faster, since they immediately begin to collect data centrally, rather than transferring it from system to system, formatting it and sometimes losing it along the way. Moscow is one of the largest projects in the world for the management of electronic health care, electronic medical records, and electronic radiology. EMIAS (Unified Medical Information and Analytical System) and ERIS as part of it are a colossal producer of big data. Apparently in Moscow, mature management will learn to extract the necessary data from this “big data” and successfully solve specific issues of the effectiveness of e-health/digital health faster than in St. Petersburg.

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ИССЛЕДОВАТЕЛЬСКИЕ СТАТЬИ

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THE RELATIONSHIP BETWEEN MATHEMATICAL ABILITIES (ACADEMIC PERFORMANCE) OF SCHOOLCHILDREN, VEGETATIVE DOMINANCE AND SOCIOPSYCHOPHYSIOLOGICAL CHARACTERISTICS OF PERSONALITY

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Annotation The article is devoted to the study of the relationship between the academic performance of schoolchildren, the dominance of a certain type of autonomic system and cognitive abilities. The author analyzes the data obtained as a result of a study conducted in a secondary school with in-depth study of the English language.

Keywords: schoolchildren, cognitive abilities, vegetative dominance.

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FEATURES OF COMMUNICATIVE COMPETENCE OF ADOLESCENTS WITH RETARDED MENTAL DEVELOPMENT AND THE CONTENT OF THEIR ACTIVITIES ON THE INTERNET

Abstract: The article presents the results of an empirical research of the characteristics of the communicative competence of adolescents with delayed mental development and the content of their activities in the digital space. There are differences in the content of educational and communicative activities of adolescents in the Internet space. The use of mathematical statistics methods made it possible to identify statistically significant differences in the severity of indicators of communicative competence of adolescents with delayed and normative development, significant correlations of activity indicators in the Internet space and skills that ensure effective communication of adolescents with mental retardation with peers.

Keywords: Internet space, the communicative competence of a personality, computer games, adolescents with delayed mental development, social media, empathy.

FEATURES OF COMMUNICATIVE COMPETENCE OF ADOLESCENTS WITH RETARDED MENTAL DEVELOPMENT AND THE CONTENT OF THEIR ACTIVITIES ON THE INTERNET

The intensive development of the modern information society determines the increased interest of researchers in the changes that occur in human social interaction in real space under the influence of new forms of online communication. The Internet is becoming a significant information and communication space for people of different ages and social status, including adolescent children with disabilities. Currently computer technologies are widely used by teenagers for educational, communication and other activities. The expansion of communication through Internet technologies determines the increased interest of researchers in studying the communicative competence of a personality as a set of skills that ensure the effectiveness of interaction in the context of ongoing changes, the need to rethink the role of communicative competence of adolescents in the information space. In existing studies communicative competence is also considered as an important element of the process of virtual communication (Golub O.Yu.; Zubok Yu.A., Chankova E.V., 2019; Tolstikova I.I., Ignatieva O.A., Kondratenko K. S., Pletnev A.V., 2022, etc.).

The purpose of the research is to study the characteristics of the communicative competence of adolescents with mental retardation in relation to indicators of the content of their activities in the Internet space.

The results of studying the communicative competence of adolescents using the "Communicative Competence" method by L. Mikhelson, modified by Yu.Z. Gilbukh showed that adolescents with mental retardation compared with adolescents with normative development are statistically significantly different in a more pronounced dependence reaction of in different communication situations: in situations which a reaction to positive statements from a partner is required ($p = 0.017$), in situations when a teenager is addressed with a request ($p=0.043$) and in which empathy is required (understanding the feelings and experiences of another person) ($p=0.013$). They are less competent when it is necessary to turn to a peer with a request, to accept help ($p = 0.047$), and also show a more aggressive reaction to fair criticism compared to adolescents with normative development ($p = 0.010$).

The results of the questionnaire showed that adolescents with mental retardation compared to adolescents with normative development more use the Internet to communicate via voice communication (76%), watch video content (70%) and play computer games (70%). Rarely they use the Internet for educational activities (23%). Teenagers with

normal development primarily use the Internet for studying (83%) and reading books (33%). They also communicate on the Internet but prefer communication especially on social networks (76%) and also play computer games (60%).

The results of the correlation analysis showed significant correlations between indicators of communicative competence and the content of activities of adolescents with mental retardation in the Internet space ($p \leq 0.05$). The questionnaire indicator “number of contacts in real life” is positively correlated with a competent way of communicating ($r = 0.41$), the indicator “the amount of time that a teenager spends on the Internet in his free time from school - 2-4 hours” has a positive correlation with communication situations in which a reaction to positive statements from a partner is required and shown a dependent reaction ($r = 0.43$). At the same time, this indicator is negatively correlated with communication situations in which empathy is required ($r = -0.36$).

The results of the study showed the presence of general characteristics of communicative competence and the content of activities in the Internet space of adolescents with normative and delayed mental development which are characteristics of adolescents. At the same time adolescents with mental retardation are characterized by insufficient development of such indicators of communicative competence as the ability to give and accept signs of attention, the ability to ask for and accept help, listen to a communication partner, adequately respond to their own failure and to fair criticism. In this situation they show aggressive reactions. Adolescents with mental retardation are also characterized by an insufficiently developed ability to show empathy towards others during the communication process and a lack of deep feelings and attachments.

The obtained data may indicate that adolescents with delayed mental development constitute a social risk group for the development of evaluative and reflexive competence. An insufficient level of development of skills and abilities of communicative competence as an integral characteristic of their personality reflecting the ability to communicate effectively can create a risk of developing various forms of addictive behavior in the Internet space including the risk of being subject to cyberbullying.

The results of the study make it possible to determine the main “symptom targets” of psychocorrectional work on the formation of communicative competence of adolescents with mental retardation.

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PROFESSIONAL BURNOUT, STRESS RESISTANCE AND PERSONAL SELF-ACTUALIZATION OF NURSES WITH DIFFERENT WORK EXPERIENCE

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Abstract. The empirical study is devoted to a comparative analysis of the parameters of professional burnout, stress resistance and self-actualization of nurses with different work experience. No significant differences were found in the indicators of professional burnout, stress resistance and self-actualization of nurses with less than 10 years of work experience and with more than 10 years of work experience. The differentiated structure of negative correlations between indicators of professional burnout, stress resistance and personal self-actualization among nurses with less than 10 years of work experience may indicate a more successful use of self-actualization resources by them to counteract professional burnout than their colleagues with more than 10 years of work experience. The discovered general features of the structure of correlations between nurses with different work experience suggest that the values of self-actualization prevent professional burnout among nurses.

Keywords: professional burnout, stress resistance, personal self-actualization, nurses.

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Short message

USE OF NON-STEROID ANTI-INFLAMMATORY DRUGS IN DENTAL PRACTICE

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Abstract. Today, there remains a need for the prescription of non-steroidal anti-inflammatory drugs (NSAIDs) in dental practice, accompanied by severe pain. The main criteria that NSAIDs used by patients must meet are: adequacy of the clinical situation, safety, and effectiveness. However, if the choice of a therapeutic agent is made without taking into account concomitant somatic pathology, there is a danger of harm to the patient's health, both on the recommendation of the attending physician and when the patient self-administers the drug. The task of a doctor prescribing NSAIDs to a patient is to minimize the negative impact of these drugs on the patient's digestive and cardiovascular systems when optimal analgesic and anti-inflammatory effects are achieved.

Keywords: nonsteroidal anti-inflammatory drugs, dental practice, features of NSAID action, side effects

USE OF NON-STEROID ANTI-INFLAMMATORY DRUGS IN DENTAL PRACTICE

Complicated caries (pulpitis, apical periodontitis) is often accompanied by severe pain caused by the inflammatory process in the pulp and periodontium. In the case of prolonged pain, the patient develops a stress reaction, which, in the presence of general somatic pathology, can lead to unpleasant consequences and even emergency conditions when performing dental intervention. According to the literature, on average, patients seek medical help after the first symptoms of acute pulpitis appear on the 3rd day [5]. As a rule, 3-4 days after the onset of pain, an irreversible form of pulpitis develops. Before consulting a doctor, patients make independent attempts to relieve acute toothache

using various painkillers. In most cases, patients use nonsteroidal anti-inflammatory drugs (NSAIDs) to relieve pain. The high percentage of NSAID use is explained by their analgesic and anti-inflammatory effectiveness and the ability to purchase them without a prescription. However, independent, uncontrolled choice of non-steroidal anti-inflammatory drugs by patients without taking into account somatic pathology and age can lead to various complications from the gastrointestinal tract, cardiovascular system, blood coagulation system, kidneys, etc. [1, 3-4, 6-8]

According to the European Epidemiological Study, over the past 30-40 years the number of patients with chronic pain has been increasing in many countries of Western Europe and the USA. In developed countries, 20-30% of elderly people receive these drugs, of which about 30% are forced to take these drugs, despite the presence of risk factors for the development of adverse events, both from the gastrointestinal tract (GIT) and the cardiovascular system (SSS) [2].

NSAIDs, influencing the course of the most important pathological processes (pain, inflammation, platelet aggregation, apoptosis, etc.), have analgesic, anti-inflammatory, antipyretic and antiplatelet effects, which determines their widespread use in various fields of medicine and stimulates the creation of new effective drugs this group for local and systemic use. The increase in the number of NSAIDs on the pharmaceutical market increases the doctor's responsibility for choosing not only effective, but also safe drug therapy, which indicates the need for individual selection of the drug in accordance with the identified pathogenetic features of the pathological process in a given patient, taking into account age, the presence of concomitant diseases and used for their treatment with pharmacotherapy. The results of treatment depend on the knowledge and ability of the doctor to choose for each patient an adequate NSAID, dose, method and duration of its use, with mandatory consideration of the balance of benefits and risks of potential complications when using the selected drug.

In dentistry, NSAIDs are most often used for inflammatory diseases of the maxillofacial region and oral mucosa (pulpitis, periodontitis, periodontitis, arthritis and arthrosis of the temporomandibular joint, bursitis), for preventive analgesia, for postoperative and post-traumatic inflammatory swelling and pain, neuritis of the facial nerve, trigeminal neuralgia, myofascial pain syndrome of the maxillofacial region, hyperthermia [6-7]. Studies have shown that the method of administration of NSAIDs does not have a significant effect on the effectiveness of the drug, so injection is used only to obtain a quick effect in severe pain. In recent years, NSAIDs have become increasingly used for preventive analgesia. It has been shown that the use of these drugs before traumatic interventions opens up the opportunity not only to suppress existing pain, but also to actively prevent its development, increases the activity of drugs used for local and general anesthesia, significantly reduces the level of inflammatory mediators in tissues, reducing the severity of the postoperative inflammatory reaction and the intensity of subsequent pain, which reduces the need for opioid analgesics [4].

When choosing a drug and treatment regimen, the characteristics of the patient's condition and the goals of therapy are taken into account. For acute pain, it is advisable to begin treatment with a high dose of a fast-acting NSAID that has pronounced analgesic activity, reducing the dose when the effect is achieved. For persistent chronic pain, long-acting drugs used 1-2 times a day are advantageous. When planning a course of treatment, it should also be taken into account that pain relief occurs within 0.5-2 hours after a single use of NSAIDs, while the anti-inflammatory effect develops only after 3-4 days with regular use of the drug [7].

The widespread use of NSAIDs has made it possible to identify the presence of the same type of side effects: a negative effect on the mucous membrane of the gastrointestinal tract (GIT), leading to the development of ulcerative processes, impaired platelet aggregation, destabilization of arterial hypertension, the development of bronchospasm and allergic reactions, decreased diuresis, edema. Therefore, among the contraindications to the use of NSAIDs, along with hypersensitivity to the drug, the patient has a history of gastric and duodenal ulcers, bronchial asthma, kidney damage, severe dysfunction of the cardiovascular system, hemostasis, etc.

It is believed that side effects develop only with long-term use of NSAIDs, so it is not recommended to use these drugs for fever for more than 3 days, or as an analgesic for more than 10 days. However, numerous experimental studies have shown that changes in the gastric mucosa can appear after the administration of one tablet, and after 3-4 days an ulcer may develop, including a perforated one, which is a factor in high mortality due to gastric bleeding. In most cases (up to 81% of cases), gastrointestinal complications are asymptomatic [1, 3-4].

The severity of individual side effects of various NSAIDs should be taken into account when choosing drugs and their dosage, especially for patients with a history of risk factors for the development of side effects: pregnancy, breastfeeding, childhood, elderly and senile age, a history of diseases of the gastrointestinal tract, liver, kidneys, cardiovascular system, patient taking drugs that interact with NSAIDs [6-8].

The presence of the same type of complications from the gastrointestinal tract, cardiovascular system, hemostasis, liver and kidneys in patients taking NSAIDs forced us to look for the cause of their occurrence and begin the search for new highly effective drugs that not only have an optimal ratio of analgesic and anti-inflammatory effects, but also have a high degree of security.

Research results. A retrospective review of domestic and foreign publications on the use of NSAIDs in dental patients with complicated caries and the presence of somatic pathology was carried out. A survey was also conducted of 65 dentists in the city of St. Petersburg and the Leningrad region in 3 public and 11 private medical institutions. In order to obtain information about patients' independent use of NSAIDs that reduce the intensity of pain in cases of acute and

exacerbation of chronic pulpitis and periodontitis, we conducted a survey of 140 patients before dental intervention. During the processing of survey data, it was revealed that the most popular NSAIDs taken by the patient in the pre-medical period were nimesulide (29.7%), ibuprofen was in second place (25.0%) and ketorol was in third place (25.0%). Patients associated their choice with advertising of these drugs in the media, over-the-counter sales and low cost.

All of these drugs have a short effect and are most effective in acute forms of caries complications (pulpitis, apical periodontitis). Ketorol has a high analgesic effect, but it must be taken with caution in patients with diseases of the cardiovascular system.

Based on the results of the survey, it was found that dentists in the preclinical period recommend NSAIDs to patients: nimesulide, it is prescribed by 42.6% of dentists, ibuprofen - 34.4%, ketorol - 11.5%, meloxicam - 4.9%. Other NSAIDs were not prescribed to patients. It was found that 11% of dentists do not prescribe NSAIDs to treat caries complications. 18% of dentists noted that they do not take into account gastrointestinal pathology when prescribing NSAIDs, 42% of doctors do not prescribe gastroprotectors for them.

Thus, the results of the survey showed that patients' choice of NSAIDs was mainly determined by the advertising activities of pharmaceutical companies, without taking into account possible risk factors from the gastrointestinal tract and cardiovascular system. Patients noted that NSAIDs can only relieve acute pain, while the need for mandatory dental treatment remains. In addition, 76% of dentists note that patients, before going to a medical facility, independently use NSAIDs in excess of the highest dose of the drug and without taking into account its effect on the gastric mucosa; they do not always replace it with the drug recommended by the doctor or do not add a gastroprotector to it.

Based on literature data and clinical observations, a table was developed (Table 1) with characteristics of NSAIDs: celecoxib, nimesulide, ibuprofen, ketorol, lornoxicam, meloxicam, paracetamol, naproxen. Each of these drugs has advantages and disadvantages.

Table 1

Algorithm for prescribing NSAIDs

General somati- mental concerns Levania/Risk complications	Low	Moderate	High
gastrointestinal tract	any NSAIDs	non-selective NSAIDs + PPIs, or selective NSAIDs	Celecosib and PPI
the cardiovascular system	Naproxen, Celekokosib, low doses Ibuprofen	Naproxen + PPI or Celecoxib	Celecocosib + IPP

Conclusion. In a retrospective analysis of domestic and foreign studies studying the effectiveness and safety of various NSAIDs, it was shown that the main difference between the drugs is the frequency of complications inherent to them, primarily from the gastrointestinal tract and cardiovascular system, which leads to limitation of their use. In addition, clinical recommendations for the rational use of NSAIDs in clinical practice boil down to the fact that the rational choice of NSAIDs should be made taking into account the presence or absence in all patients, including the dental profile, of complications from the gastrointestinal tract and cardiovascular system according to the developed algorithm (Table 1). The algorithm clearly regulates contraindications to the prescription of NSAIDs and defines indications taking into account the individual characteristics of the patient and his clinical diseases. For acute pulpitis and apical periodontitis, maximum doses of short-acting NSAIDs should be prescribed; for chronic forms of caries complications, long-acting drugs should be prescribed.

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FEATURES OF COMMUNICATIVE BEHAVIOR IN THE PROCESS OF SOCIAL AND PSYCHOLOGICAL REHABILITATION CHILDREN OF PRIMARY SCHOOL AGE AFTER COCHLEAR IMPLANTATION

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Annotation. The article is devoted to the study of the characteristics of the communicative behavior of children of primary school age after cochlear implantation (CI) in the context of their socio-psychological rehabilitation. CI allows children to restore hearing and improve their communication skills, which significantly improves their quality of life. After a CI, children may experience ambivalent feelings and emotions, a state of uncertainty due to new experiences of auditory perception of the world, physical pain or discomfort during recovery from surgery. Children must go through a process of adaptation to new auditory experiences. Of particular importance is adaptation to new conditions of interpersonal, in particular, dyadic interaction. Such interaction should involve the formation and development in children after CI of new skills of communicative behavior, the basis of which is verbal and nonverbal manifestations. These skills include perceiving and distinguishing between speech and non-speech sounds, maintaining a conversation, listening to others, and expressing thoughts and emotions. Communicative behavior involves the use of gestures, facial expressions, intonation, tone of voice, pauses, and choice of words and phrases to convey specific emotions, intentions, or meaning. These nonverbal and verbal elements can be used to covertly express feelings, control interactions, or create a certain impression. In the process of socio-psychological rehabilitation after a CI, an important place is occupied by psychological support for children, which involves reducing fears and anxiety, optimizing the emotional and psychophysical state, improving self-esteem and increasing self-awareness.

Key words: communicative behavior, socio-psychological rehabilitation, dyadic interaction, cochlear implantation, dialogue, non-verbal and verbal communication, partner position, cooperation.

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FEATURES OF THE USE OF NON-STEROID ANTI-INFLAMMATORY DRUGS IN DENTAL INTERVENTIONS

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Abstract. Modern dentistry cannot be imagined without anesthesia and anti-inflammatory treatment, but even the most modern drugs, positioned as “having minimal side effects” and “reasonably safe,” actually have quite pronounced cardiotoxicity. The main criteria that non-steroidal anti-inflammatory drugs used by patients must meet are: adequacy of the clinical situation, safety, effectiveness. However, if the choice of a therapeutic agent is made without taking into account concomitant somatic pathology, there is a danger of causing harm to the patient’s health, both on the recommendation of the attending physician and when the patient self-administers the drug

Keywords: cardiotoxicity, local anesthetic drugs, non-steroidal anti-inflammatory drugs used in dentistry, risk of cardiovascular diseases

In the 20th century, pharmacology was enriched with a whole arsenal of local anesthetics, and dental treatment was no longer accompanied by excruciating pain. The emergence of new materials has contributed to the popularity of dentures. However, in the specialized literature, in our opinion, such an important side effect of dental pharmacology as the cardiotoxicity of widely used drugs is not systematically covered. Indeed, before installing implants, the patient must undergo a course of anti-inflammatory therapy, and after installation, pain must be relieved for some time, sometimes quite a long time, with the help of non-steroidal anti-inflammatory drugs. In addition, the treatment or removal of affected teeth requires the use of local anesthetics, even if they are marketed as “virtually safe.” Anyone knows that it is better to treat teeth under “freezing”, i.e. using local anesthesia. Anesthesia is indicated during the following manipulations:

- treatment of deep caries;
- extirpation or amputation of the pulp (depulpation);
- tooth extraction (removal);
- other surgical interventions;
- preparing teeth for prosthetics;
- some types of orthodontic treatment.

It is believed that local anesthesia is much safer for the body than general anesthesia, but it is still not absolutely safe.

There are special requirements for painkillers used in dentistry: rapid relief of a painful attack and ensuring a long-term effect. Non-steroidal anti-inflammatory drugs (NSAIDs) meet these requirements, therefore, in the practice of modern surgical dentistry, a number of dental interventions, including dental implantation, are accompanied by the mandatory prescription of analgesics in the postoperative period [3]. Pain management during the postoperative period is necessary to ensure that the patient feels as well as possible after surgery.

According to WHO, non-steroidal anti-inflammatory drugs (NSAIDs) rank second after antibiotics in terms of widespread use. A feature of modern NSAIDs is the variety of their dosage forms for local and parenteral use [7]. The great “popularity” of NSAIDs is explained by the fact that they have anti-inflammatory, analgesic and antipyretic effects and bring relief to patients with corresponding symptoms (inflammation, pain, fever), which are observed in many diseases [5]. In Russia, the share of NSAIDs in the first half of 2023 amounted to 10% of the total pharmaceutical market volume. Russians bought almost 193 million packages of NSAIDs, with 82% coming from products that can be purchased at pharmacies without a doctor’s prescription. The year before, sales were double that, at about 415 million packages. According to forecasts by the marketing agency Data Bridge, by 2030 the global market for internal NSAIDs will reach \$32 billion, and for external anti-inflammatory agents, i.e. creams, ointments and gels, will reach \$3.7 billion.

The mechanism of the anti-inflammatory action of these drugs is associated with their inhibitory effect on the enzyme cyclooxygenase, which is necessary for the synthesis of cyclic endoperoxides. As a result, the production of prostanoids decreases. This leads to a decrease in such manifestations of inflammation as hyperemia, swelling, pain.

The mechanism of analgesic action is associated with the inhibitory effect of this group of substances on the synthesis of prostaglandins (as a result of inhibition of the enzyme cyclooxygenase). As is known, prostaglandins cause hyperalgesia - they increase the sensitivity of nociceptors to chemical and mechanical stimuli. Therefore, inhibition of the synthesis of prostaglandins (PGE2, PGF2a, PG12) prevents the development of hyperalgesia. The threshold of sensitivity to painful stimuli increases.

Typically, the analgesic effect of such drugs is especially pronounced during inflammation. Under these conditions, the focus of inflammation is the release and interaction of prostaglandins and other inflammatory mediators. As noted, prostaglandins cause hyperalgesia, and against this background, the pain response to bradykinin, histamine and other inflammatory mediators with nociceptive activity is significantly enhanced (as in response to mechanical irritation). Therefore, suppression of prostaglandin synthesis leads to an analgesic effect, which is especially pronounced during inflammation.

The central component in the analgesic effect of this group of drugs is not excluded, which is confirmed by the example of paracetamol, in which the peripheral component (anti-inflammatory properties) is practically absent, and the analgesic effect is sufficiently expressed. And in this case, inhibition of the synthesis of prostaglandins, which are formed in the central nervous system, is important. Obviously, in this case, only the conduction of painful stimuli in the afferent pathways is disrupted without affecting the mental component of pain and its assessment [6].

The importance of the anti-inflammatory properties of substances in reducing pain is also due to purely mechanical factors. With a decrease in edema and tissue infiltration, the pressure on the receptor endings decreases, which helps relieve pain.

When treating with NSAIDs, adverse reactions may occur: increased blood pressure, the appearance of edema and symptoms of heart failure. Such side effects generally occur in about a third of patients, and in 5% of cases they pose a serious threat to the lives of patients. Adverse effects of NSAID use include their effect on the cardiovascular system, kidneys, gastrointestinal tract, and central nervous system [1].

The potential “vascular” effects of NSAIDs, such as increased blood pressure, fluid retention, may be especially significant in individuals with an increased risk of cardiovascular complications, for example, in elderly patients suffering from arterial hypertension, coronary heart disease and diabetes mellitus, as well as rheumatoid arthritis [8], in addition, bleeding, asthma attacks, urticaria, headache, insomnia, dizziness and convulsions are noted.

In addition, concomitant use of NSAIDs and:

- drugs that prevent the formation of blood clots increase the risk of bleeding;
- drugs to lower blood pressure may reduce the effectiveness of the latter.

Taking two or more NSAIDs does not enhance their effect, but increases the risk of side effects.

Therefore, according to the standard of dental treatment, interventions under local anesthesia are prohibited for six months after an acute heart attack or stroke, and this is no coincidence.

Content analysis of annotations and discussion of results

We found that novocaine 2% is used as an anesthetic in the dental clinic in Tikhvin, and lidocaine 2% is used in the dental department of the Lodeynopol Central District Hospital (for free treatment). There are more modern anesthetics, such as Ultracaine, Ubistezin, Scandonest, Septonest (at the patient's expense). We conducted a content analysis of annotations on the use of the most widely used drugs for local anesthesia in dentistry. The analysis data are presented in Table 1.

Thus, each of the studied local anesthetics used in dentistry is a potential risk factor for the development of cardiovascular diseases. The cardiotoxic effect of local anesthetics is determined by several components. First of all, blockade of Na channels disrupts normal atrioventricular conduction. Another factor determining the cardiotoxicity of local anesthetics is their inhibitory effect on ATP synthesis in mitochondria [2]. Another important element of cardiotoxicity is the presence of adrenaline in local anesthetics, which is added to constrict blood vessels and reduce the risk of bleeding.

In the dental clinic in Tikhvin and in the dental department of the Lodeynopol Central District Hospital, the following non-steroidal anti-inflammatory drugs are widely prescribed: dexalgin (tablets, ampoules), Nise (tablets), Ketanov (tablets, ampoules), Faspik (tablets), artcoxia (tablets) is less commonly used. However, content analysis of the labels for the use of these nonsteroidal anti-inflammatory drugs also suggests their potential cardiotoxicity. Analysis data are presented in Table 2.

Table 1

Cardiotoxic effect of local anesthetics used in dentistry

Name of the drug	Contraindications and side effects
Novocain (Novocainum). Synonyms: Procaine hydrochloride (Procaini hydrochloridum), Aminocaine, Pancain, Syntocain	May cause dizziness, weakness, hypotension, allergic reactions. Dangerous for the cardiovascular system due to the need for combination with a 0.1% solution of adrenaline
Lidocaine. Synonyms: Xylocaine, Xycaine, Lidocaine hydrochloride, Lignocaine hydrochloride (Lignocain HCl), Lidocaton	It should be used with caution in patients receiving antiarrhythmic drugs, as the toxic effect may be enhanced. It is not recommended for cardiovascular insufficiency, atrioventricular block II-III degree, as well as for hypersensitivity to this anesthetic. Use with caution in patients with untreated arterial hypertension. May cause Morgagni-Adams-Stokes syndrome - fainting caused by an acutely developing cardiac arrhythmia and entailing a sharp decrease in cardiac output and cerebral ischemia
Mepivacaine. Synonym: Mepicaton, Scandicaine, Scandonest	when mepivacaine is used together with beta-blockers, calcium channel blockers and other antiarrhythmic drugs, the inhibitory effect on myocardial conductivity and contractility increases
Ultracain. Synonyms: Articaine hydrochloride, Ultracain D-S, Ultracain D-S forte, Septanest, Ubistezin	Massive resorption causes depression of cardiac activity, decreased blood pressure and respiratory depression, including cardiac arrest. Given the presence of epinephrine, the following

	contraindications exist: decompensated heart failure, tachyarrhythmia, Morgagni-Adams-Stokes syndrome
Ethidocaine. Synonym: Duranest	It is not recommended to use after conditions accompanied by blood loss, in case of impaired functions of the cardiovascular system

Table 2

Cardiotoxic effect of nonsteroidal anti-inflammatory drugs used in dentistry

Name of the drug	Contraindications and side effects
Dexalgin 25 tbl p/o 25 mg No. 10, Dexalgin solution for injection 25 mg/ml 2 ml No. 10 Berlin-Chemie/ Menarini Group	This drug is contraindicated in severe heart failure; patients taking anticoagulants. Dexalgin should be taken with caution in case of coronary heart disease, disorders of the hematopoietic system, as well as in elderly patients and in cases of predisposition to hypovolemia. Side effects from the cardiovascular system – feeling of heat, arterial hypotension, hyperemia of the skin, tachycardia, extrasystole, arterial hypertension, superficial thrombophlebitis, peripheral edema
Nise TB 100 mg, Dr. Reddy's Laboratories Ltd. Nimika, Nimulid, Nimesil, Aponil	Contraindications: decompensated heart failure, period after coronary artery bypass grafting. Use with caution if the patient has: coronary heart disease, cerebrovascular disease, congestive heart failure, dyslipidemia/hyperlipidemia, peripheral arterial disease, concomitant therapy with anticoagulants (for example, warfarin), antiplatelet agents (for example, acetylsalicylic acid, clopidogrel) Side effects from the cardiovascular system: infrequently – arterial hypertension; rarely – tachycardia, hemorrhages, “hot flashes”.
Ketanov Ranbaxy Laboratories Limited, India Dolak, Ketorol, Ketorolac Tb. 10 mg No. 100, amp. 30 mg/ml 1 ml No. 10	Use with caution in chronic heart failure and arterial hypertension. Contraindicated in hemorrhagic stroke. As a side effect, it causes a rise in blood pressure
Faspik Zambon S.P.A. Via della Chimica, Italy Tb. 400 mg No. 6, No. 30 Active ingredient: ibuprofen	Caution is required in the following cases: heart failure; arterial hypertension; Side effects: heart failure, tachycardia, increased blood pressure
Arcoxia tuberculosis. 60, 90, 120 mg Merck Sharp and Dome B.V., The Netherlands	Contraindications: severe heart failure, the period after coronary artery bypass surgery, peripheral arterial disease, cerebrovascular disease, clinically significant coronary heart disease; persistent blood pressure values exceeding 140/90 mmHg. Art. with uncontrolled arterial hypertension. Side effects from the cardiovascular system: often – palpitations, increased blood pressure; uncommon – hot flashes, cerebrovascular accident, atrial fibrillation, congestive heart failure, nonspecific ECG changes; myocardial infarction, very rarely – hypertensive crisis

The drug Trinol [4] does not have a strong analgesic, but it is also non-toxic and has a strong anti-inflammatory effect, so it was chosen for use in dental treatment. The result was assessed using

psychotesting and determining pain sensitivity thresholds. The results obtained showed that the use of Trinol in the pre- and postoperative period reduces the intensity of pain and promotes earlier regression of local signs of inflammation, which indicates the advisability of using Trinol before traumatic interventions and in the complex therapy of odontogenic inflammatory processes. The use of Trinol for pain relief made it possible to reduce the intensity of the pain syndrome by 50% by the 2-3rd day of taking the drug and reduce the dose of NSAIDs.

Thus, to increase the effectiveness and safety of treatment, it is necessary to select NSAIDs and the method of their use, taking into account the expected benefits and the risk of potential complications. Perhaps the group at increased risk for cardiovascular diseases should include people who currently do not have significant cardiac pathologies, but who have a large number of treated, filled or extracted teeth, as well as patients with installed implants.

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