

## MODERN MECHANISMS FOR IMPROVING THE SPHERE OF MATERNAL AND CHILD HEALTH PROTECTION BASED ON THE CONCEPT OF JUVENILE BIOETHICS

**Zokirova Ziyoda Javdatovna**

Assistant at the Department of Forensic Medicine and Medical Law,  
Tashkent State Medical University

### ABSTRACT

This study provides a scientific-theoretical and practical analysis of modern mechanisms for improving maternal and child health protection based on the concept of juvenile bioethics. The work reveals the essence of the principles of juvenile bioethics, their place and significance in the system of maternal and child health protection. Issues regarding the application of the principles of child rights, human dignity, justice, autonomy, and non-harmfulness in medical and legal practice are also highlighted.

**Keywords:** juvenile bioethics, protection of motherhood and childhood, children's rights, human dignity, medical and legal relations, bioethical principles

Since ancient times, humans have used natural medicinal substances derived from plants and animals to treat various diseases. The first physicians and pharmacists tried to overcome diseases by observing, experimenting, and testing the gifts of nature. In particular, attempts to isolate biologically active substances from animal organisms and use them against various diseases were an important stage in the development of pharmacy. However, the large-scale development of the process of artificially synthesizing medicines—that is, creating them chemically—is linked to the development of chemistry. In the late 19th and early 20th centuries, discoveries in the fields of organic chemistry and microbiology marked a true turning point in pharmacology. In 1891, Paul Ehrlich proposed a theory for the purposeful use of chemical compounds in the fight against infectious diseases. His concept of the "magic bullet" later laid the foundation for the formation of antimicrobial therapy. Thus, a system of scientifically grounded pharmacotherapy began to emerge. In particular, the fact that the majority of pediatric medicines used in pediatrics, pediatric surgery, and other specialized fields have been developed over the last 30–40 years demonstrates the rapid pace of medical development. Approximately 95 percent of the drugs currently used in pediatric practice were created during this period. Children's medicines are pharmacological substances or their mixtures that have passed all stages of clinical trials, have been officially approved for use by authorized state bodies for the prevention, diagnosis, and treatment of diseases in

children, and are included in the state register. Their quality, safety, and effectiveness will be evaluated through a special control system. Such state control is of decisive importance for the protection of children's health.

The quality of medical care for children largely depends on the availability of effective and safe medicines. Therefore, one of the priority tasks of healthcare policy is the stable provision of the maternal and child health protection system with the necessary pharmacological preparations. State policy is aimed at providing children with medicines and medical devices in sufficient quantities, in a wide range, and at affordable prices for the population. In emergency situations such as the pandemic, the uninterrupted supply of medicines is of particular importance. One of the main directions for implementing state policy in the field of providing medicines to children is the development of a system of preferential provision within the framework of state guarantee programs. International experience shows that the rational provision of medicines to children allows for the effective use of state budget funds. According to the recommendations of the World Health Organization, the first stage of forming such a system is the introduction of a national list of essential medicines.

Another important stage in the transition to the rational prescription and use of medicines is the improvement of the formulary system. The formulas will be developed based on the optimal ratio of the effectiveness, safety, and cost of the drugs. This approach makes it possible to make standardized and scientifically grounded decisions in medical practice. Practical experience shows that implementing a formulaic system can lead to savings of up to 25–30 percent in budget funds.

At the same time, there are problems with drug therapy in children. According to statistics, 3–15% of parental visits to a doctor are related to a deterioration in a child's health resulting from the use of medication. Three to five percent of hospitalizations are caused by pharmacotherapy complications. According to various independent public organizations, side effects of drug therapy are observed in 10–30% of patients undergoing inpatient treatment. This situation further increases the importance of caution, an individual approach, and supervision when prescribing medications.

In the second half of the 20th century, safety and efficacy were accepted as the primary criteria for evaluating medicines. Subsequently, the sharp increase in the cost of medical technologies necessitated the consideration of economic efficiency. Thus, a new scientific direction—pharmacoeconomics—was formed. In the selection of medicines, it analyzes not only clinical efficacy but also financial acceptability. The existence of various approaches to providing medical care to children has placed the issue of determining optimal medical tactics on the agenda. This task is addressed by clinical

epidemiology. It allows for the prediction of treatment outcomes in a specific clinical case by studying patient groups based on rigorous scientific methods. Research shows that the majority of cases of low-quality medical care (85-95%) are related to shortcomings in the medical care organization system, and only 5-15% of cases are due to the individual characteristics of the disease. Over the past 25 years, the development of medical science, health economics, and innovative management systems has fundamentally transformed pediatric practice. Currently, improving the child healthcare system should include four main areas: financial investments, the introduction of high-tech medicine, the transition from empirical pediatrics to evidence-based medicine, and the development of juvenile bioethics.

In our country, the volume and content of medical care for children are regulated by medical and economic standards. These standards cover all aspects, such as laboratory and instrumental diagnostics, choice of medicines, duration of treatment, and consultations with specialists. However, in practice, in some cases, doctors may pay more attention to standard requirements than to the individual characteristics of the sick child. This sometimes increases the likelihood of excessive treatment, which negatively affects the child's physical and mental state.

Therefore, ensuring a balance between clinical efficiency, cost-effectiveness, and bioethical principles in organizing medical care for children remains a pressing task. This approach will make the child healthcare system more effective, safe, and humane.

On the other hand, in pediatric practice, the quality of the treatment process should be assessed not only by the volume of procedures performed or compliance with standards, but primarily by the final results. Such results include a reduction in child mortality rates, a decrease in morbidity rates, a reduction in disability cases among children with chronic diseases, as well as improvements in functional indicators—physical, mental, and social development. It is these criteria that reflect the actual effectiveness of medical care. One of the priority tasks in the fields of obstetrics and gynecology and pediatrics is the continuous improvement of the personnel training system, as well as the adaptation of the organizational and staff structure of these services to modern requirements. As medical practice continues to evolve at a rapid pace, doctors are required to regularly enhance their knowledge and skills. According to scientific literature, some North American studies have shown that as medical practice extends over many years, an inverse relationship may arise between the level of theoretical knowledge and modern diagnostic and therapeutic skills. According to the authors, when a doctor completes an internship or residency, their clinical skills are at their highest level, and later, without continuing education, this level may decrease. In Russia, periodic

professional development courses for doctors are organized, and various specialized paid training programs are also available. Major clinics and research centers consider it their duty to conduct annual professional development courses on their basis. However, sociological studies show that only 20–40 percent of doctors regularly attend such courses. Many specialists do not consider it necessary to subscribe to specialized literature, participate rarely in national and international conferences and congresses, and do not publish scientific articles. For example, the maximum circulation of a subscription to a general medical journal in Russia is 15,000 copies, even though there are approximately 650,000 doctors working in the country. This situation indicates the need to further improve the system of continuous medical education. In Russia, medical standards are established at the state level, and issues regarding the protection of children's health are under the control of the state leadership. However, the state can guarantee the provision of qualified medical care to children, but cannot fully ensure their health. Health status largely depends on lifestyle, family environment, and genetic factors. Therefore, pediatricians should explain to parents that their awareness and attitude toward the child have a significant impact on health. Numerous studies show that children who receive parental love, care, and psychological support undergo the disease more easily and recover faster. Parents also need to know when to consult a doctor and which symptoms pose a serious risk. In cases of mild illnesses, such as viral infections of the upper respiratory tract, parents are often able to provide assistance to the child independently. This will reduce the workload of medical institutions.

This approach has been tested in practice. Some insurance companies have distributed a "Health Guide" to their clients, and as a result, the number of visits to the doctor has significantly decreased. It is especially important to train parents in the timely identification of serious conditions in a child that require urgent care. Early detection and timely treatment of chronic diseases serve to reduce child mortality.

In chronic diseases, parents and the child themselves must have extensive information about the disease, recognize signs of exacerbation early, and act according to the doctor's recommendations. Scientific evidence suggests that self-control and healing skills can be highly effective. For example, teaching children with asthma and their parents to act independently reduced emergency calls by 79 percent and hospitalizations by 86 percent. Additionally, educational lectures on fever in children reduced parental visits to a doctor by 35 percent, and total visits for acute diseases by 25 percent. E.E. Bartlett analyzed the moral and economic effectiveness of parental education, and it was found that every dollar spent on education saves an average of 3-4 dollars. This effect is particularly pronounced in cases of asthma and upper respiratory tract infections. Doctors,

in collaboration with parents, can develop a healthy lifestyle program for the child. The experience of countries such as Finland, the United States, and Canada shows that it is possible to change society's attitude toward a healthy lifestyle. It is important to cover topics such as the harmfulness of alcohol, tobacco products, and narcotics, road safety, and to conduct special classes on a healthy lifestyle in schools. Regulating advertising campaigns at the state level and limiting the promotion of products that have a negative impact on children's health is also an urgent task. Although many measures have been adopted at the legislative level, ensuring their implementation and taking strict measures against violators is of decisive importance. It is advisable to develop and distribute books, manuals, audio, and video materials on self-care for mild illnesses, monitoring one's condition for chronic diseases, and making individual adjustments to treatment. Such materials can be distributed both on a commercial basis and free of charge through medical institutions. Parents should be involved in the decision-making process regarding high-risk or scientifically controversial life-saving interventions. At the same time, doctors should study the level of satisfaction of children with the quality of medical care provided.

In conclusion, the following can be noted:

1. practical recommendations based on clinical epidemiology and evidence will allow obstetrician-gynecologists, neonatologists, and pediatricians to abandon ineffective treatment methods;
2. From the perspective of human rights, economic expediency, and juvenile bioethics, parents and sick children should have the opportunity to choose the attending physician;
3. primary health care must play a central role in the system of maternal and child health protection, ensuring continuity between polyclinics and hospitals;
4. parents must be actively involved in the implementation of the diagnosis and treatment program, although the right to make medical decisions remains with the specialist.
5. Thus, the development of the child healthcare system requires a comprehensive approach—scientifically grounded medicine, economic efficiency, moral responsibility, and cooperation with parents.

### References

1. United Nations. Convention on the Rights of the Child. New York, 1989.
2. UNESCO. Universal Declaration on Bioethics and Human Rights. Paris, 2005.
3. World Health Organization. Constitution of the World Health Organization. Geneva, 1946.

4. World Health Organization. WHO Model List of Essential Medicines for Children. First edition – 2007 (кейинги янгиланишлари 2011, 2017, 2021).
5. World Health Organization. Standards for Improving Quality of Maternal and Newborn Care in Health Facilities. Geneva, 2016.
6. UNICEF. The State of the World’s Children. (Йиллик ҳисоботлар, 1980-йиллардан ҳозиргача).
7. United Nations. Sustainable Development Goals (SDGs). 2015.
8. Tom L. Beauchamp, James F. Childress. *Principles of Biomedical Ethics*. 1-nashr – 1979; 7-nashr – 2013.
9. Ruth Macklin. *Against Relativism in Global Bioethics*. 1999.
10. Henk A. M. J. ten Have. *Global Bioethics: An Introduction*. 2016.
11. Alberto Giubilini. *The Ethics of Vaccination*. 2019.
12. Diego Gracia. *Foundations of Bioethics*. 1989.
13. Paul Ramsey. *The Patient as Person*. 1970.
14. Richard E. Behrman, Robert M. Kliegman. Nelson Textbook of Pediatrics. 1-nashr – 1950; 21-nashr – 2019.
15. American Academy of Pediatrics. Pediatric Ethics Policy Statements. 1995–2023.
16. International Pediatric Association. Child Health Position Papers. 2000–2022.
17. World Health Organization. Integrated Management of Childhood Illness (IMCI). 1997.
18. David L. Sackett et al. Evidence-Based Medicine: How to Practice and Teach EBM. 1997; 2-nashr – 2000.
19. Trisha Greenhalgh. How to Read a Paper. 1997; 6-nashr – 2019.
20. Cochrane. Cochrane Database of Systematic Reviews. 1993 йилдан.
21. Michael Drummond et al. Methods for the Economic Evaluation of Health Care Programmes. 1987; 4-nashr – 2015.
22. Paul Ehrlich. On Immunity with Special Reference to Cell Life. 1891.
23. World Health Organization. Guidelines for ATC Classification and DDD Assignment. 2003–2023.
24. E. E. Bartlett. Publications on parental education effectiveness in pediatrics. 1980–1995.
25. Ўзбекистон Республикасининг “Соғлиқни сақлаш тўғрисида”ги Қонуни. 1996 (кейинги таҳрирлар билан).
26. Ўзбекистон Республикасининг “Бола ҳуқуқларининг кафолатлари тўғрисида”ги Қонуни. 2008.
27. Ўзбекистон Республикаси Президентининг оналик ва болаликни муҳофаза қилишни такомиллаштиришга оид қарорлари. 2017–2023.
28. “Соғлом она ва бола йили” Давлат дастури. 2016.