



EVIDENCE-BASED MEDICINE IN CANCER TREATMENT AND REHABILITATION

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ABSTRACT

Evidence-based medicine is the foundation of a modern approach to cancer treatment and rehabilitation, ensuring the application of clinical decisions based on scientific research, clinical guidelines, and high-quality evidence. With the increasing incidence of cancer and increasing life expectancy, the implementation of evidence-based approaches not only in treatment but also in the comprehensive rehabilitation of cancer patients is particularly important. This article examines the basic principles of evidence-based medicine in cancer treatment and rehabilitation, analyzing modern clinical protocols, drug therapy methods, surgical and radiation treatments, and rehabilitation measures aimed at restoring functional status and improving quality of life for patients. It is shown that the use of evidence-based approaches contributes to increased treatment effectiveness, a reduced incidence of complications, and optimization of long-term outcomes in cancer care.

ДОКАЗАТЕЛЬНАЯ МЕДИЦИНА ПРИ ЛЕЧЕНИИ И РЕАБИЛИТАЦИИ ОНКОЛОГИЧЕСКИХ ЗАБОЛЕВАНИЙ

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ABSTRACT

Доказательная медицина является основой современного подхода к лечению и реабилитации онкологических заболеваний, обеспечивая применение клинических решений, основанных на результатах научных исследований, клинических рекомендациях и доказательствах высокой степени достоверности. В условиях роста онкологической заболеваемости и увеличения продолжительности жизни пациентов особое значение приобретает внедрение доказательных



KEYWORDS

*Доказательная медицина;
онкологические
заболевания; лечение рака;
онкологическая
реабилитация;
клинические
рекомендации; качество
жизни пациентов.*

*подходов не только в лечении, но и в комплексной
реабилитации онкологических больных. В статье
рассматриваются основные принципы
доказательной медицины при лечении и
реабилитации онкологических заболеваний,
анализируются современные клинические
протоколы, методы лекарственной терапии,
хирургического и лучевого лечения, а также
реабилитационные мероприятия, направленные на
восстановление функционального состояния и
улучшение качества жизни пациентов. Показано,
что использование доказательных подходов
способствует повышению эффективности
лечения, снижению частоты осложнений и
оптимизации долгосрочных результатов
онкологической помощи.*

Introduction. Cancer remains a leading cause of morbidity and mortality worldwide, necessitating continuous improvement in treatment and rehabilitation approaches. Modern oncology is characterized by the introduction of high-tech diagnostic and therapeutic methods, as well as a shift toward personalized treatment. In this context, evidence-based medicine, based on scientifically validated clinical data, randomized trials, and international clinical guidelines, is particularly important. The application of evidence-based medicine principles in oncology improves the effectiveness of treatment, reduces the risk of complications, and ensures the rational use of medical resources. Drug therapy, surgical interventions, and radiation therapy are increasingly selected based on evidence of their clinical efficacy and safety, which contributes to improved long-term treatment outcomes and increased patient survival. At the same time, cancer treatment is not limited to antitumor therapy alone. A significant proportion of patients require comprehensive medical rehabilitation aimed at restoring physical, psychological, and social functioning. An evidence-based approach to cancer patient rehabilitation involves the use of methods whose effectiveness has been confirmed by clinical trials and systematic reviews, thereby improving patients' quality of life and their adaptation to everyday life. The relevance of this study stems from the need to systematize current data on the use of evidence-based medicine in the treatment and rehabilitation of cancer patients. Analysis of evidence-based approaches and their implementation in clinical practice are essential for improving the quality of cancer care and optimizing patient treatment and rehabilitation outcomes.

Materials and Methods

This study is based on a comprehensive analysis of current scientific data on the application of evidence-based medicine principles in the treatment and rehabilitation of cancer patients. The primary method used was a systematic review of domestic and



international scientific publications, clinical guidelines, and consensus documents from leading international oncology organizations.

The study included materials from randomized controlled trials, meta-analyses, systematic reviews, and clinical guidelines published in recent years on drug, surgical, and radiation therapy, as well as medical rehabilitation for cancer patients. Particular attention was paid to assessing the level of evidence and the degree of recommendation for the treatment and rehabilitation approaches used.

To analyze the effectiveness of treatment and rehabilitation methods, comparative and analytical methods were used to compare the results of various therapeutic strategies in terms of survival, complication rates, functional recovery, and patient quality of life. A method for classifying rehabilitation measures based on the stage of cancer treatment and the patient's clinical condition was also used. The data obtained were processed and interpreted using a logical-analytical approach and generalizing methods, ensuring the objectivity and scientific validity of the study's conclusions. The results were systematized taking into account the principles of evidence-based medicine and current clinical guidelines in the fields of oncology and medical rehabilitation.

Results. An analysis of current scientific data has shown that the application of evidence-based medicine principles in cancer treatment provides higher clinical efficacy and safety compared to traditional empirical approaches. The use of treatment protocols based on the results of randomized controlled trials and meta-analyses contributes to increased overall and relapse-free survival rates for patients, as well as a reduction in the incidence of severe side effects of anticancer therapy.

It has been established that evidence-based drug treatment regimens, including chemotherapy, targeted therapy, and immunotherapy, allow for more precise therapy selection based on the stage of the disease, the molecular genetic characteristics of the tumor, and the individual patient's characteristics. The use of modern surgical and radiation techniques, the effectiveness of which has been confirmed by clinical trials, helps reduce postoperative complications and improve functional treatment outcomes.

The results of the analysis demonstrate the significant role of evidence-based medicine in the medical rehabilitation of cancer patients. The effectiveness of rehabilitation programs that include physical rehabilitation, psychological support, nutritional correction, and social adaptation has been confirmed by clinical trials. The use of evidence-based rehabilitation interventions leads to improved physical condition, reduced pain, and increased quality of life for patients at various stages of cancer treatment. It has been noted that integrating rehabilitation into an overall treatment plan based on the principles of evidence-based medicine facilitates faster recovery of patients' functional capabilities and their return to active social life. It has also been found that the use of standardized scales for assessing quality of life and functional status allows for an objective assessment of the effectiveness of rehabilitation interventions and the adjustment of patient management strategies.

Thus, these results confirm that the use of evidence-based medicine in the treatment and rehabilitation of cancer patients provides a comprehensive and scientifically sound



approach to cancer care and contributes to the improvement of both clinical and socially significant outcomes.

Discussion. These results confirm the key role of evidence-based medicine in improving the treatment and rehabilitation of cancer patients. The use of clinical decisions based on the results of randomized controlled trials and systematic reviews ensures more predictable and consistent clinical outcomes compared to empirical approaches. This is especially important in the context of the high heterogeneity of cancer diseases and individual differences between patients.

The use of evidence-based drug therapies, including targeted and immunotherapy, allows for the optimization of treatment choices based on the molecular biological characteristics of the tumor. Data analysis shows that a personalized, evidence-based approach contributes to increased survival and reduced treatment toxicity. Similar trends are observed with the use of modern surgical and radiation technologies, the effectiveness of which is confirmed by the results of clinical trials and international guidelines.

An important aspect is the integration of evidence-based medicine principles into the medical rehabilitation of cancer patients. The results demonstrate that the early integration of evidence-based rehabilitation measures helps reduce functional limitations, improve psychoemotional well-being, and enhance patients' quality of life. This emphasizes the need for an interdisciplinary approach involving oncologists, rehabilitation specialists, psychologists, and palliative care specialists.

At the same time, the data discussed highlight existing limitations in the implementation of evidence-based medicine in clinical practice. These include the heterogeneity of the evidence base for individual rehabilitation methods, the limited availability of modern technologies, and the need for continuous updating of clinical guidelines. Furthermore, the practical implementation of evidence-based approaches requires a high level of training for medical personnel and systemic support from the healthcare system.

Thus, the discussion of the results leads to the conclusion that further development of evidence-based medicine in oncology should be aimed at expanding the scientific base, implementing standardized rehabilitation programs, and strengthening interdisciplinary collaboration. This creates the preconditions for improving the quality of oncological care and long-term patient treatment and rehabilitation outcomes.

Conclusion. Evidence-based medicine is the fundamental basis of a modern approach to the treatment and rehabilitation of cancer patients. The analysis showed that the use of clinical decisions based on scientifically proven data contributes to the increased effectiveness of anticancer therapy, a reduced incidence of complications, and improved patient survival rates. The use of evidence-based treatment methods allows for the optimization of therapeutic strategies, taking into account the individual characteristics of the disease and the patient. Integrating evidence-based medicine principles into the medical rehabilitation system for cancer patients ensures a comprehensive and continuous approach to restoring the physical, psychological, and social functioning of patients. Early and appropriate inclusion of rehabilitation measures contributes to improved quality of life, a reduction in the severity of functional



impairments, and increased social adaptation in cancer patients. At the same time, the further development of evidence-based medicine in oncology requires the expansion of the scientific base, the standardization of rehabilitation programs, and the refinement of clinical guidelines. Improving the training of medical specialists and developing interdisciplinary collaboration are essential for the successful implementation of evidence-based approaches in clinical practice. Thus, the application of evidence-based medicine principles in the treatment and rehabilitation of oncological diseases is a key factor in improving the quality of oncological care and achieving sustainable long-term results of treatment and rehabilitation of patients.

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