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Review article

Management of the quality management system of sanatorium rehabilitation in case of professional pulmonary diseases: Thematic overview

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Abstract

Introduction. Occupational lung diseases are the most frequently encountered pathological processes in various industries that have harmful production factors, especially dust genesis, affecting the growth of the level of disability and premature mortality of the working-age population. These data substantiate the need for medical and health-improving measures in patients with occupational lung diseases in sanatorium conditions with the use of a complex of rehabilitation technologies. The basic principles of using a modern quality management system in providing sanatorium care to patients with occupational lung diseases are considered as a promising approach to quality management in providing rehabilitation services to this category of working population.

Objective. To analyze and systematize literature data on the rationale for a promising approach to quality management in sanatorium rehabilitation for occupational lung diseases.

Methods. A systematic review was conducted based on the data of modern literature on the relevant topic for 2015-2025 on the priority issues of providing sanatorium rehabilitation care and improving its quality for patients with occupational lung diseases.

Results. The analysis showed the relevance of the problem of health-improving and rehabilitation care for patients with occupational lung diseases in a sanatorium organization. The use of the basic principles of the medical care quality management system was the basis for a new approach to quality management in the provision of sanatorium rehabilitation for occupational lung diseases.

Conclusion: In the health improvement of the working population in harmful production conditions with dust factors and occupational lung diseases, sanatorium organizations play a leading role with the provision of a complex of medical and rehabilitation services. Compliance with the principles of the quality management system in the provision of rehabilitation care for occupational lung diseases was the basis for recommending a new approach to management and quality improvement for sanatorium organizations.

Keywords: occupational lung diseases, sanatorium rehabilitation, quality improvement, management system.

1. Introduction

It is well recognized that population health is the greatest asset of any country, determining its security and level of civilization. In this regard, strengthening public health—particularly the health of the working population—is one of the state's strategic priorities, with the healthcare system serving as a key sector that provides social guarantees for the protection and promotion of population health [1].

In this context, the Republic of Kazakhstan has implemented a range of large-scale, comprehensive public health measures. Notably, the National Project "Quality and Accessible Healthcare for Every Citizen – Healthy Nation" (2021–2025) has been completed, alongside the ongoing implementation of other state-level public health initiatives [1,2].

At the same time, health resort organizations play a key role in the health care system in improving the health of the working population, providing one of the most important stages of medical care to the population, along with outpatient and inpatient care.

One of the priority objectives of the healthcare system is the protection of the health of the working population, particularly individuals exposed to chronic occupational hazards that contribute to the development of occupational diseases. Such diseases include conditions for which a causal relationship with exposure to specific adverse workplace factors has been established [3].

Across various industrial sectors, many production processes are associated with dust generation, including mining and ore extraction, coal mining, metallurgy, metalworking and mechanical engineering, construction materials manufacturing, and other industries [4].

The major dust-related occupational diseases include pneumoconioses, chronic bronchitis, and various respiratory tract disorders. These pathological conditions contribute to increased morbidity, higher rates of temporary and permanent work disability, and premature mortality among the working-age population [5].

The aim of this review is to analyze and systematize literature data on the rationale for a promising approach to quality management in sanatorium rehabilitation for occupational lung diseases.

2. Materials and Methods

A search for relevant to the study topic publications was performed via PubMed, Web of Science, and Elsevier databases from 2015 to 2026 in depth 16 years. The following keywords were used in the search: occupational lung diseases, sanatorium rehabilitation, quality improvement, management system.

Inclusion criteria were: original studies on the adult population of patients that studied the effect of sanatorium rehabilitation on a occupational lung diseases, literature review and meta analyses on management system of sanatorium rehabilitation . Exclusion criteria were studies that did not report on association between sanatorium rehabilitation and occupational lung diseases; studies that did not include human subjects (animal studies); letters, abstracts, and articles that did report statistical results on effect estimate of OR and 95%CI.

3. Results

Diseases of the respiratory system rank among the leading causes of morbidity, affecting approximately 30% of the population annually. According to official statistics, respiratory diseases account for 17.2% of the overall morbidity structure among the adult population in the Russian Federation (20,936.0 per 100,000 population). The highest rates of occupational morbidity per 10,000 workers were recorded in the following economic activities: mining (32.75), manufacturing industries (3.63), and others [6].

The literature indicates that differences in the prevalence, incidence, and disability associated with dust-related pulmonary diseases across occupational groups are explained by variations in dust exposure levels, dust composition, as well as heterogeneity in work experience, age, and occupation [7]. Recognition of certain conditions as occupational diseases and the establishment of causal relationships between exposure to harmful workplace factors and adverse health outcomes enable the development and implementation of so-called preventive strategies. These include modifications of occupational sanitary and hygienic standards, limitation of exposure to hazardous factors, and the implementation of medical surveillance, along with medical and social protection of workers [8].

The etiological factors underlying the development of dust-related pulmonary pathology include dusts of various compositions and harmful chemical substances with toxic and irritant effects [4]. Adverse workplace microclimatic conditions—such as high and/or low temperatures and air humidity—combined with dust and chemical exposures, also exert a pronounced negative impact on the bronchopulmonary system [9].

Improving the methodology for monitoring occupational dust exposure contributes to the preservation of workers' health and to a reduction in the prevalence of occupational and work-related diseases [10].

Effective control of dust-related pulmonary diseases requires the application of modern medical technologies and preventive approaches, as well as sustained efforts to improve working conditions and protect workers' health across industrial sectors. A key component of addressing this challenge lies not only in treatment but also in prevention, based on an understanding of the mechanisms underlying dust-induced diseases, as well as the use of sanatorium-based (spa) rehabilitation aimed at health restoration and slowing disease progression [11,12].

At present, sanatorium-based rehabilitation for patients with respiratory diseases plays an important role in comprehensive therapy. Such rehabilitation is individualized, taking into account the nature of the underlying disease process, its pathogenetic mechanisms, complications, and comorbid conditions [13].

Sanatoriums are medical institutions in which treatment and health promotion are based primarily on the use of natural therapeutic factors in combination with physiotherapy and other therapeutic modalities [14,15].

Approximately 9.5 million residents of the Russian Federation, particularly individuals with various occupational diseases, require comprehensive medical rehabilitation annually. Such rehabilitation includes therapeutic physical exercise, respiratory and device-based physiotherapy, balneotherapy, various types of massage and reflex therapy, as well as psychotherapeutic interventions.

Thus, in the management of respiratory diseases, therapeutic interventions used in the rehabilitation of pulmonary patients primarily include pharmacological therapy, physiotherapeutic treatment modalities, various breathing exercise techniques, reflex therapy, manual therapy, and massage. A leading role in rehabilitation programs is assigned to therapeutic physical exercise, as physical activity helps to activate the functional reserves of the respiratory system and to achieve the most complete possible restoration or compensation of respiratory function by establishing an optimal breathing pattern with prolonged expiration.

In the provision of all types of medical care, the quality of therapeutic and rehabilitation services is a primary requirement. This type of medical care is predominantly delivered in sanatorium-based healthcare institutions.

Quality management in sanatorium-based healthcare settings represents a set of approaches and administrative practices aimed at improving the quality of services provided [16]. At present, ISO standards constitute the fundamental framework for quality management. However, the implementation of these standards is often carried out without adequate scientific support and justification [17,18].

At the same time, research has been conducted to substantiate the scientific principles for implementing international management standards in sanatorium-based healthcare practice, with the aim of improving the effectiveness and quality of therapeutic, rehabilitative, and social services provided [19,20].

First and foremost, these studies emphasize the inseparability of the core domains of standardized management within sanatorium-based institutions. Specifically, sanatoriums should implement a unified, integrated quality management system for the services they provide. This premise arises from the identified essential characteristics of the primary activities of this type of healthcare organization [21].

In this context, it should be noted that, first, the quality of services provided is a key performance criterion. On the one hand, it ensures an adequate level of health improvement among the serviced population, increases service accessibility, enhances patient satisfaction, and improves the effectiveness of therapeutic and rehabilitative care; on the other hand, it contributes to the economic stability of the organization [22,23].

At the same time, the assessment of the quality of rehabilitative services must take into account the diversity of therapeutic factors and technologies used by sanatorium-based healthcare institutions. This diversity creates specific risks for both the working population and service personnel, which should be explicitly addressed within the quality management system [24,25]. Sanatorium-resort organizations, in accordance with their mission to implement progressive approaches to improving the health of the population of Kazakhstan through the use of natural therapeutic factors in the interests of patients, adopt an integrated quality management policy [26].

In addressing the key challenges they face under contemporary conditions, sanatorium-based healthcare institutions adhere to the following core principles [27]:

- to ensure the quality of services provided through optimization of technological processes, justification of applied rehabilitation procedures, an individualized approach to care, and systematic monitoring of effectiveness;
- to promote a culture of safe behavior, enhance approaches to safety assurance, and systematically improve the health status of personnel in sanatorium-based healthcare institutions;
- to pursue continuous technological advancement, ensure effective innovation management, and implement new technologies;
- to clearly define the responsibility of each sanatorium staff member for ensuring service quality and patient safety.

The contemporary planning system for implementing these principles is based on the identification of key quality aspects and operational risks. Each year, sanatorium-based healthcare institutions conduct an assessment of significant aspects, with participation from representatives of all departments. For example, identified key aspects and risks include the provision of medical prescriptions without a clearly established diagnosis, as well as the unjustified use of physiotherapeutic treatment methods [28].

Within this context, the principle of the inseparability of three core domains of standardized quality management for healthcare organizations is emphasized. Specifically, sanatorium-based institutions should implement a unified, integrated system for quality management and occupational health and safety. This principle derives from the identified essential characteristics of sanatorium-based healthcare organizations.

Thus, the core principles of quality management for sanatorium-based healthcare institutions have been proposed. For each of the proposed quality management principles, both general and specific objectives have been defined. The overarching objective is to increase staff awareness of the health status of the patients served, while specific objectives include increasing the number of therapeutic and rehabilitative procedures and introducing screening questionnaires for the early identification of the direction and severity of pathological conditions. In accordance with these objectives, a program is developed that specifies responsible personnel, timelines, and resources required to achieve the intended goals. For each operational process, documented procedures are developed to ensure effective and systematic management.

Subsequently, the quality management system should be based on the following key elements:

- an integrated management policy serving as an internal regulatory document that introduces international standards into sanatorium practice;
- planning, which defines a system of measures for the planned implementation of sanatorium activities based on significant aspects, emerging problems, and identified risks;
- operation, which implements the planned activities through the systematic allocation of responsibilities, resources, information, and documentation;
- monitoring and corrective actions, providing for the establishment of a continuous internal audit system within the organization, including the development of corrective and preventive measures.

According to World Health Organization (WHO) materials, the quality of healthcare services is determined by several key components, including the integrity of the healthcare system; the adequacy of actions taken by service providers; effective governance; the availability of qualified personnel and an adequate health workforce;

sufficient and timely financing; the presence of health information systems that enable continuous monitoring of patient satisfaction with medical care; and the availability of modern equipment and technologies in healthcare institutions [17,18].

The scientific and methodological literature contains limited research evaluating the effectiveness of sanatorium-based rehabilitation for occupational lung diseases. Some authors have reported results on changes in subjective and objective health indicators, economic aspects of improved work capacity associated with sanatorium treatment, as well as a limited number of studies employing sociological questionnaires to assess population satisfaction with sanatorium services [29,30].

The effectiveness of sanatorium-based rehabilitation is assessed both subjectively and objectively by the attending physician, primarily based on improvements in the functional status of key body systems, reduction in patient complaints, selected clinical indicators, and overall well-being dynamics [31,32].

In this context, there is a clear need for quantitative and qualitative methods to assess patient satisfaction with sanatorium-based healthcare. Accordingly, it is important for professionals working in this sector to identify promising criteria for evaluating patients' health status and functional capacity [33,34].

In their practice, staff in most sanatorium-based healthcare institutions adhere to key World Health Organization (WHO) recommendations, which emphasize participation in quality measurement and improvement in partnership with patients; the adoption and implementation of a team-based care philosophy; recognition of patients as partners in healthcare delivery; and the allocation of time for the collection and use of indicator-based data to enhance service effectiveness and safety. At the same time, for sanatorium-based rehabilitation to be effective, patients should have the capacity and willingness to actively engage in improving their own health, assume a leading role in organizing their care, be aware of their rights to access healthcare services of contemporary quality, and receive adequate support, information, and skills to manage chronic conditions. Collectively, these measures contribute to the provision of high-quality sanatorium-based treatment that fully meets the needs of service recipients [17].

It can be noted that the outcomes of health promotion and rehabilitation care for patients with occupational lung diseases are generally assessed as sufficiently high in quality and effectiveness, meeting the expectations of the vast majority of patients. To further enhance the level of sanatorium-based therapeutic and rehabilitative care, a key priority is to ensure high service quality and achieve effectiveness through the application of patient-centered principles grounded in contemporary clinical and public health recommendations [35,36].

Thus, adherence to existing quality management standards represents a fundamental basis for substantiating a new approach to quality management and quality improvement in the provision of sanatorium-based rehabilitation care for patients with occupational dust-related lung diseases.

4. Discussion

Occupational dust-related lung diseases continue to be among the most prevalent pathologies affecting the working population exposed to hazardous industrial environments. A key aspect in addressing this issue is the organization and implementation of sanitary-hygienic and therapeutic–rehabilitative measures aimed at reducing the impact of harmful etiological factors and strengthening the health status of workers in such settings.

In the delivery of health promotion and rehabilitation interventions for pulmonary patients from the working population exposed to harmful dust factors, an essential condition is the enhancement of the quality of the comprehensive range of sanatorium-based services provided. In this context, adherence to the core principles and technologies of quality management systems in sanatorium-based rehabilitation care is advisable, as this approach enables the recommendation of a new quality management framework. Such a framework represents one of the key medical and organizational pathways for improving the effectiveness of sanatorium-based rehabilitation services.

5. Conclusion

The conducted analysis demonstrated that occupational lung diseases most frequently occur among the working population employed in industrial enterprises with hazardous working conditions,

particularly those involving dust exposure, which represent the leading etiological factors. The findings highlight the need to implement preventive and health promotion–rehabilitative measures aimed at reducing the prevalence of pulmonary pathologies among workers exposed to harmful occupational environments.

In promoting and strengthening the health of this population group, sanatorium-based healthcare institutions play a leading role by providing a comprehensive range of modern therapeutic and rehabilitative services. Particular emphasis is placed on the quality of the medical technologies applied. Adherence to the core principles of quality management systems in the provision of rehabilitation care for occupational lung diseases forms the basis for recommending a new approach to quality management, with the aim of identifying key pathways for quality improvement.

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Conceptualization – K.S.; methodology – G.D..; revising – T.K.; formal analysis – E.S. and K.S.; writing (original draft preparation) – E.S.; writing (review and editing) – G.D.

References

1. National Development Plan of the Republic of Kazakhstan until 2029. Healthcare section. (2024). Astana: Government of the Republic of Kazakhstan. URL: https://www.gov.kz/
2. National Project "Quality and Accessible Healthcare for Every Citizen 'Healthy Nation'" for 2021–2025. (2021). Government of the Republic of Kazakhstan. URL: https://www.gov.kz/
3. Fomin, A. I., & Grunskoy, T. V. (2021). Sravnitelnyj analiz professionalnoj zabolevaemosti na predpriyatiyah dobyvayushchej promyshlennosti Kemerovskoj oblasti, Kuzbassa i Respubliki Komi (Comparative analysis of occupational morbidity in mining enterprises of Kemerovo region, Kuzbass and Komi Republic) [in Russian]. Byulleten nauchnogo centra po bezopasnosti rabot v ugolnoj promyshlennosti, (1), 51–56. https://cyberleninka.ru/article/n/sravnitelnyy-analiz-professionalnoy-zabolevaemosti-na-predpriyatiyah-dobyvayuschih-otrasley-promyshlennosti-kemerovskoy-oblasti/viewer
4. Babanov, S. A., & Budash, D. S. (2018). Dokazatelnost, professionalnye riski i biologicheskie markery pri professionalnyh zabolevaniyah legkih (Evidence, occupational risks and biomarkers in occupational lung diseases) [in Russian]. Medicina truda i ekologiya cheloveka, (1), 34–43. https://cyberleninka.ru/article/n/dokazatelnost-professionalnye-riski-i-biologicheskie-markery-pri-professionalnyh-zabolevaniyah-legkih
5. Izmerov, N. F., Bukhtiyarov, I. V., Prokopenko, L. V., & Shigan, E. E. (2015). Realizaciya globalnogo plana dejstvij VOZ po ohrane zdorovya rabotayushchih v Rossijskoj Federacii (Implementation of the WHO global plan of action on workers' health in the Russian Federation) [in Russian]. Medicina truda i promyshlennaya ekologiya, (9), 4–8. https://cyberleninka.ru/article/n/realizatsiya-globalnogo-plana-deystviy-voz-po-ohrane-zdorovya-rabotayuschih-v-rossiyskoy-federatsii
6. Mukhin, N. A., Kosarev, V. V., Babanov, S. A., & Fomin, V. V. (2016). Professionalnye bolezni (Occupational diseases) [in Russian]. Moscow: GEOTAR-Media. URL: http://www.studentlibrary.ru/book/ISBN9785970436660.html
7. Amanbekova, A. U., Grebeneva, O. V., Dosmagambetova, R. S., Shadetova, A. Zh., Alekseev, A. V., Rusyaev, M. V., & Okasov, D. B. (2025). Professionalnye osobennosti vozniknoveniya i techeniya pylevyh zabolevanij legkih. Obzor literatury (Occupational features of the occurrence and course of dust-related lung diseases. Literature review) [in Russian]. Nauka i Zdravoohranenie, 27(1), 219–231. https://cyberleninka.ru/article/n/professionalnye-osobennosti-vozniknoveniya-i-techeniya-pylevyh-zabolevaniy-legkih-obzor-literatury
8. Vasileva, O. S., & Kravchenko, N. Yu. (2015). Hronicheskaya obstruktivnaya bolezn legkih kak professionalnoe zabolevanie: faktory riska i problema mediko-socialnoj reabilitacii bolnyh (Chronic obstructive pulmonary disease as an occupational disease: risk factors and issues of medical and social rehabilitation) [in Russian].

Rossijskij medicinskij zhurnal, (5), 22–26. https://cyberleninka.ru/article/n/hronicheskaya-obstruktivnaya-bolezn-legkih-kak-professionalnoe-zabolevanie-faktory-riska-i-problema-mediko-sotsialnoy-reabilitatsii

9. Karimova, L. K., Shapoval, I. V., Muldasheva, N. A., et al. (2022). Riski razvitiya professionalnyh zabolevanij organov dyhaniya u rabotnikov vedushchih otraslej promyshlennosti (Risks of occupational respiratory diseases among workers in leading industries) [in Russian]. Bezopasnost i ohrana truda, (2), 42–45. https://biota.ru/publishing/magazine/bezopasnost-i-oxrana-truda-%E2%84%962,-2022/l.-k.-karimova,-i.-v.-shapoval,-n.-a.-muldasheva,-a.-z.-fagamova,-a.-d.-volgareva,-n.-a.-bejgul-riski-razvitiya-professionalnyix-zabolevanij.html

10. Egorova, A. M., Lutsenko, L. A., Sukhova, A. V., Kolyuka, V. V., & Fedorovich, G. V. (2021). K voprosu ocenki professionalnogo riska zabolevanij pylevoj etiologii (On the assessment of occupational risk of dust-related diseases) [in Russian]. Zdravoohranenie Rossijskoj Federacii, 65(4), 354–358. https://cyberleninka.ru/article/n/k-voprosu-otsenki-professionalnogo-riska-zabolevaniy-pylevoy-etiologii

11. Bulnaeva, G. I. (2022). Medicinskaya reabilitaciya pacientov s zabolevaniyami organov dyhaniya (Medical rehabilitation of patients with respiratory diseases) [in Russian]. Irkutsk: Irkutsk State Medical University. https://dokumen.pub/caf75fa83b0a5e72d4d1eedc6794fcfd.html

12. Deshko, T. A., Kotova, K. V., & Mogilevets, O. N. (2017). Effektivnost reabilitacii pacientov s professionalnymi zabolevaniyami organov dyhaniya (Effectiveness of rehabilitation of patients with occupational respiratory diseases) [in Russian]. In Sbornik IV Respublikanskoj nauchno-prakticheskoj konferencii s mezhdunarodnym uchastiem (pp. 76–79). Grodno. https://cyberleninka.ru/article/n/effektivnost-kompleksnoy-reabilitatsii-pri-professionalnyh-zabolevaniyah-v-respublike-tatarstan/pdf

13. Antonyuk, M. V., & Gvozdenko, T. A. (2016). Medicinskaya reabilitaciya pulmonologicheskih bolnyh: sovremennyj vzglyad i perspektivy (Medical rehabilitation of pulmonary patients: modern view and perspectives) [in Russian]. Byulleten Vladivostokskogo filiala DVO RAN, (59), 87–98. https://cyberleninka.ru/article/n/meditsinskaya-reabilitatsiya-pulmonologicheskih-bolnyh-sovremennyy-vzglyad-na-problemu-i-perspektivy-v-usloviyah-dalnego-vostoka

14. Ajrapetova, N. S., Uyanaeva, A. I., Tupitsyna, Yu. Yu., & Antonovich, I. Z. (2016). Rol sanatorno-kurortnogo lecheniya pacientov s nespecificheskimi zabolevaniyami organov dyhaniya (Role of spa treatment in patients with nonspecific respiratory diseases) [in Russian]. Voprosy kurortologii, fizioterapii i LFK, 93(5), 43–51. https://doi.org/10.17116/kurort2016543-51

15. Navasadyan, O. E., & Meleshkova, N. A. (2021). Reabilitaciya bolnyh s zabolevaniyami organov dyhaniya (Rehabilitation of patients with respiratory diseases) [in Russian]. In Sbornik studencheskogo nauchnogo foruma. Kemerovo.

16. World Health Organization. (2021). Reabilitaciya v sisteme zdravoohraneniya: rukovodstvo k dejstviyam. Geneva: WHO. URL: https://www.who.int/

17. World Health Organization, Organisation for Economic Co-operation and Development, & World Bank. (2018). Delivering quality health services: A global imperative for universal health coverage. Geneva: World Health Organization. URL: https://www.who.int/publications/i/item/9789241513906

18. Ministry of Healthcare of the Republic of Kazakhstan. (2023). Prikaz Ministra zdravoohraneniya Respubliki Kazakhstan No. 65 ot 07 aprelya 2023 g. Ob utverzhdenii standarta organizacii okazaniya medicinskoj reabilitacii (Order of the Minister of Healthcare of the Republic of Kazakhstan No. 65 of April 7, 2023 on approval of the standard for organization of medical rehabilitation services) [in Russian]. URL: https://adilet.zan.kz/

19. Gorbunova, N. E. (2017). Kachestvo zhizni kak kriterij ocenki effektivnosti medicinskoj i socialnoj reabilitacii (Quality of life as a criterion for assessing the effectiveness of medical and social rehabilitation) [in Russian]. Moscow: Laboratornaya kniga.

20. WHO. (2018). Global reference list of 100 core health indicators. Geneva: World Health Organization. URL: https://apps.who.int/iris/handle/10665/259951

21. WHO, & World Bank. (2019). Delivering quality health services: A global imperative for universal health coverage. Geneva: World Health Organization. URL: https://www.who.int/publications/i/item/9789241513906

22. Glushanko, V. S. (2021). Metodika rascheta i analiza indikatorov kachestva medicinskoj pomoshchi naseleniyu (Methodology for calculating and analyzing healthcare quality indicators) [in Russian]. Moscow. https://elib.vsmu.by/bitstream/123/23081/1/Glushanko-VS_Metodika_rascheta_i_analiza_indikatorov_kachestva_meditsinskoj_pomoshchi_naseleniiu_2021.pdf

23. Aksenova, E. I., & Besschetnova, O. V. (2021). Pokazateli dostupnosti i kachestva medicinskoj pomoshchi (Indicators of accessibility and quality of healthcare) [in Russian]. Moscow. https://niioz.ru/upload/iblock/63d/63d12bf7dd923bd9c2a1870502c07175.pdf

24. Simonyan, R. Z., Kaylanich, G. A., Lopukhova, V. A., & Tarasenko, I. V. (2016). Izuchenie kachestva medicinskoj pomoshchi (Study of healthcare quality) [in Russian]. Mezhdunarodnyj zhurnal prikladnyh i fundamentalnyh issledovanij, 8(2), 185–187.

25. Zakharova, E. V. (2019). Issledovanie udovletvorennosti pacientov (Patient satisfaction study) [in Russian]. Universitetskaya medicina Urala, (5), 87–89.

26. Kairgeldina, S. A. (2019). Sanatorno-kurortnyj kompleks Kazakhstana: problemy i puti resheniya (Spa complex of Kazakhstan: Problems and solutions) [in Russian]. Voprosy kurortologii Respubliki Kazakhstan, (3), 9–12.

27. Ivanov, I. V. (2020). Nauchnoe obosnovanie organizacii kontrolya kachestva medicinskoj deyatelnosti (Scientific justification of quality control in healthcare) [in Russian]. Abstract of doctoral dissertation. Moscow.

28. Kairgeldina, S. A., Giniyat, A., & Zhumaeva, G. Sh. (2023). Organizacionno-pravovye voprosy sanatorno-kurortnogo dela v Kazakhstane (Organizational and legal issues of spa treatment in Kazakhstan) [in Russian]. Voprosy kurortologii Respubliki Kazakhstan, 1(4), 16–18.

29. World Health Organization. (2018). Global reference list of 100 core health indicators. Geneva: World Health Organization. URL: https://apps.who.int/iris/handle/10665/259951

30. Nakenova, A. A., Ajdaraliev, A. A., & Al-Shavabke, L. Dzh. O. (2021). Teoreticheskie osnovy marketinga i kachestva v sisteme zdravoohraneniya (Theoretical foundations of marketing and quality in healthcare) [in Russian]. Byulleten nauki i praktiki, (5), 248–256. https://cyberleninka.ru/article/n/teoreticheskie-osnovy-marketinga-v-sisteme-zdravoohraneniya

31. Shambetova, Zh. U. (2018). Kriterii i standarty kachestva v sanatorno-kurortnyh organizaciyah (Quality criteria and standards in spa organizations) [in Russian]. Vestnik Medicinskogo centra UDP RK, (2), 84–88.

32. Kuleshova, A. N. (2019). Ocenka udovletvorennosti pacientov (Patient satisfaction assessment) [in Russian]. Nedelya nauki, 12–13.

33. Moldazhanov, M. B., & Purichi, V. V. (2022). Sostoyanie i rol sanatorno-kurortnoj sistemy Altaya (State and role of the Altai spa system) [in Russian]. Semey–Barnaul. https://cyberleninka.ru/article/n/sostoyanie-i-rol-sanatorno-kurortnoy-sistemy-rossiysko-kazahskogo-altaya-v-ozdorovlenii-naseleniya

34. Gilmutdinova, L. T. (2021). Ocenka kachestva deyatelnosti sanatorno-kurortnyh organizacij (Assessment of spa organizations quality) [in Russian]. Arbatskie chteniya, (6), 146–147.

35. Ajrapetova, N. S., Uyanaeva, A. I., Tupitsyna, Yu. Yu., & Antonovich, I. Z. (2016). Rol sanatorno-kurortnogo lecheniya (Role of spa treatment) [in Russian]. Voprosy kurortologii, fizioterapii i LFK, 93(5), 43–51.

36. Kairgeldina, S. A., Sheveleva, N. I., Ibraeva, L. K., Dosmagambetova, R. S., Amanbekova, A. U., Gulyaev, A. E., Tekebaev, K. O., & Baurzhan, M. B. (2025). Medicinskaya reabilitaciya pacientov v sanatorno-kurortnyh usloviyah (Medical rehabilitation of patients in spa settings) [in Russian]. Astana: E.S.Print.

Кәсіби өкпе аурулары кезінде санаторийлік-курорттық оңалтудағы сапа менеджменті жүйесін басқару: Тақырыптық шолу

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Түйіндеме

Кіріспе. Кәсіби өкпе аурулары – зиянды өндірістік факторлары, әсіресе шаң тектес әсерлері бар әртүрлі өндіріс салаларында жиі кездесетін патологиялық үдерістердің бірі болып табылады. Бұл еңбекке қабілетті

халық арасында мүгедектік деңгейінің өсуіне және мерзімінен бұрын өлім-жітімнің артуына әсер етеді. Бұл деректер кәсіби өкпе аурулары бар пациенттерге санаторий жағдайында оңалту технологияларының кешенін қолдана отырып, емдік-сауықтыру шараларын жүргізудің қажеттілігін негіздейді. Кәсіби өкпе аурулары бар пациенттерге санаторийлік көмек көрсету кезінде заманауи сапа менеджменті жүйесін қолданудың негізгі қағидаттары осы санаттағы жұмыс істейтін халыққа оңалту қызметтерін көрсетуде сапаны басқарудың перспективалық тәсілі ретінде қарастырылады.

Мақсаты. Кәсіби өкпе аурулары кезінде санаторийлік оңалтуда сапаны басқарудың перспективалық тәсілін негіздеу бойынша әдебиеттер деректерін талдау және жүйелеу.

Әдістері. 2015–2025 жылдар аралығындағы тиісті тақырып бойынша заманауи әдебиеттер деректеріне негізделген жүйелі шолу жүргізілді, онда кәсіби өкпе аурулары бар пациенттерге санаторийлік-оңалту көмегін көрсету және оның сапасын арттырудың басым мәселелері қарастырылды.

Нәтижелері. Талдау кәсіби өкпе аурулары бар пациенттерге санаторий ұйымдары жағдайында сауықтыру және оңалту көмегін көрсетудің өзектілігін көрсетті. Медициналық көмектің сапасын басқару жүйесінің негізгі қағидаттарын қолдану кәсіби өкпе аурулары кезінде санаторийлік оңалту қызметін көрсетуде сапаны басқарудың жаңа тәсілінің негізі болды.

Қорытынды. Зиянды өндірістік жағдайларда, шаң факторлары әсер ететін және кәсіби өкпе аурулары бар жұмыс істейтін халықты сауықтыруда санаторий ұйымдары медициналық және оңалту қызметтерінің кешенін ұсына отырып, жетекші рөл атқарады. Кәсіби өкпе аурулары кезінде оңалту көмегін көрсету барысында сапа менеджменті жүйесінің қағидаттарын сақтау санаторий ұйымдарында басқару мен сапаны арттырудың жаңа тәсілін ұсынуға негіз болды.

Түйінді сөздер: кәсіби өкпе аурулары, санаторийлік оңалту, сапаны арттыру, басқару жүйесі.

Управление системой менеджмента качества санаторно-курортной реабилитации при профессиональных заболеваниях лёгких: Тематический обзор

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Резюме

Введение. Профессиональные заболевания лёгких являются одними из наиболее часто встречающихся патологических процессов в различных отраслях промышленности с вредными производственными факторами, особенно пылевого генеза, что влияет на рост уровня инвалидности и преждевременной смертности среди населения трудоспособного возраста. Эти данные обосновывают необходимость проведения лечебно-оздоровительных мероприятий у пациентов с профессиональными заболеваниями лёгких в условиях санатория с применением комплекса реабилитационных технологий. Основные принципы использования современной системы менеджмента качества при оказании санаторной помощи пациентам с профессиональными заболеваниями лёгких рассматриваются как перспективный подход к управлению качеством при предоставлении реабилитационных услуг данной категории работающего населения.

Цель. проанализировать и систематизировать данные литературы по обоснованию перспективного подхода к управлению качеством санаторной реабилитации при профессиональных заболеваниях лёгких.

Методы. Проведен систематический обзор на основе данных современной литературы по соответствующей тематике за 2015–2025 годы по приоритетным вопросам оказания санаторно-реабилитационной помощи и повышения её качества у пациентов с профессиональными заболеваниями лёгких.

Результаты. Анализ показал актуальность проблемы оздоровительной и реабилитационной помощи пациентам с профессиональными заболеваниями *л*ёгких в условиях санаторной организации. Использование основных принципов системы управления качеством медицинской помощи стало основой нового подхода к управлению качеством при оказании санаторной реабилитации при профессиональных заболеваниях *л*ёгких.

Заключение. В оздоровлении работающего населения, занятых во вредных производственных условиях с пылевыми факторами и профессиональными заболеваниями *л*ёгких, санаторные организации играют ведущую роль, обеспечивая комплекс медицинских и реабилитационных услуг. Соблюдение принципов системы менеджмента качества при оказании реабилитационной помощи при профессиональных заболеваниях *л*ёгких стало основой *д*ля рекомендации нового подхода к управлению и повышению качества в санаторных организациях.

Ключевые слова: профессиональные заболевания *л*ёгких, санаторная реабилитация, повышение качества, система управления.