THE CENTENARY OF THE TUBERCULOSIS SERVICE OF THE KYRGYZ REPUBLIC: HISTORICAL DEVELOPMENT, RESEARCH TRADITION, AND CONTEMPORARY CHALLENGES

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ABSTRACT

Introduction. Over the past 100 years, the tuberculosis (TB) service of the Kyrgyz Republic has evolved from the first specialized TB facilities into a modern system of comprehensive TB care.
Objective. To describe the major stages in the development of the TB service of the Kyrgyz Republic and to examine the role of the Kyrgyz Research Institute of Tuberculosis, now the National Center of Phthisiology, in the organization of TB care, workforce development, research, and programmatic TB management.
Materials and Methods. The article was prepared as a historical and analytical review. The sources included archival materials, information on TB facilities, regulatory documents, national TB program materials, reports, and publications on the history of tuberculosis care.
Results. The review identified the major milestones in the development of the national TB service, including the establishment of the first specialized TB facility in Frunze in 1926, the development of sanatorium, dispensary, and inpatient care, the establishment of the Kyrgyz Research Institute of Tuberculosis in 1957, expansion of the TB care network, training of TB specialists, and development of a national research tradition. Particular attention is given to the introduction of the DOTS strategy, programmatic TB management, laboratory diagnostics, digital surveillance, and the management of drug-resistant tuberculosis.
Conclusion. Current priorities include tuberculosis prevention, early case detection, high-quality diagnostics, treatment of multidrug-resistant/rifampicin-resistant tuberculosis (MDR/RR-TB), social support for patients, and the continued development of the national TB service.

Key words: *tuberculosis, tuberculosis service, Kyrgyz Republic, National Center of Phthisiology, medical history, tuberculosis care, drug-resistant tuberculosis.*

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INTRODUCTION

For centuries, tuberculosis has been one of the most serious infectious diseases, closely associated with social conditions, living standards, access to medical care, and the organization of public health services. Unlike many other infectious diseases, TB control has always required not only the treatment of individual patients but also the development of a comprehensive system encompassing early case detection, laboratory diagnosis, follow-up, health education, prevention, social support, and the training of specialized healthcare professionals [1].

Over the past century, the TB service of the Kyrgyz Republic has undergone a complex transformation, evolving from the earliest sanatorium- and dispensary-based forms of care into a modern system that includes specialized clinical units, electronic epidemiological surveillance, rapid molecular diagnostics, treatment of drug-resistant tuberculosis, operational research, and international collaboration.

A central role in this development has been played by the Kyrgyz Research Institute of Tuberculosis, established in 1957 on the basis of the Republican Tuberculosis Dispensary and now operating as the National Center of Phthisiology [8, 9, 12]. Its establishment reflected the need to improve the quality of TB care, coordinate organizational and methodological activities, conduct scientific research, and provide advanced training for TB specialists.

The aim of the study. To describe the major stages in the establishment and development of the TB service of the Kyrgyz Republic over the past century, to highlight the role of the National Center of Phthisiology as the country's leading scientific, methodological, and clinical institution in the field of tuberculosis, and to outline future directions for the development of TB care in the country.

MATERIALS AND METHODS OF RESEARCH

This article was prepared as a historical and analytical review. The analysis drew on archival and historical materials describing the development of tuberculosis care in the Kyrgyz Republic; information on the activities of the Kyrgyz Research Institute of Tuberculosis (KRIT) and the National Center of Phthisiology (NCP); materials from the Centralized Legal Information Database of the Ministry of Justice of the Kyrgyz Republic [1–7]; official resources of the NCP and the Kyrgyz State Medical Academy [8, 9]; clinical guidelines [10, 11]; statistical and reporting data from the national TB service; and publications and review materials on the history of phthisiology [12].

1. Early Development of Tuberculosis Care in Kyrgyzstan, 1926–1950s

The development of tuberculosis care in Kyrgyzstan began at a time when tuberculosis was widespread, severe, and, in many cases, diagnosed at an advanced stage. In the early twentieth century, diagnostic capacity was limited, specialized TB facilities were virtually nonexistent, and patients generally received care in general hospitals, outpatient clinics, and polyclinics. The organized development of the TB service in the republic began in 1926. That year, the first specialized TB facility, with 25 beds, was opened in Frunze. At approximately the same time, sanatorium-based care began to develop. The Koy-Sary resort was established on the shores of Lake Issyk-Kul, and in 1928 a kumis-treatment facility was opened in the Osh canton [8, 12].

The development of sanatorium-based care was consistent with the therapeutic approaches of that period. Before effective antibacterial treatment became available, tuberculosis management relied largely on climatotherapy, structured daily routines, adequate nutrition, and prolonged stays in favorable environmental conditions. In this context, the Issyk-Kul region, with its particular climatic characteristics, became an important part of the early history of tuberculosis care in Kyrgyzstan. In 1937, the Cholpon-Ata Children's Clinical Sanatorium began operating. One year later, a tuberculosis sanatorium was established in Przhevalsk, now Karakol, and in 1939 a sanatorium for patients with osteoarticular tuberculosis was opened on the shores of Lake Issyk-Kul.

By the end of 1940, the republic had one tuberculosis dispensary, five TB units, and three sanatoriums. The Frunze City Tuberculosis Dispensary was reorganized as a republican-level facility, reflecting the gradual strengthening of the TB service and the expansion of its responsibilities.

Substantial changes in the development of the service occurred during the post-war years. The network of specialized TB facilities expanded, while dedicated services developed in several areas, including pediatric tuberculosis, thoracic and tuberculosis surgery, osteoarticular tuberculosis, and ocular tuberculosis. Sanatorium-based preschool institutions and boarding schools were also established.

In 1949, the Issyk-Kul Tuberculosis Sanatorium was opened, while the Vorontsovka Children's Sanatorium began operating in the foothill area of Frunze to provide treatment for children with bone tuberculosis.

By 1950, the tuberculosis care network in the republic had acquired a more clearly defined organizational structure. The country had three tuber- culosis dispensaries, 20 urban TB offices, the first rural TB offices, a tuberculosis hospital, and several sanatorium facilities. More than 360 inpatient beds were available for the treatment of patients with tuberculosis.

Thus, the period from 1926 to the early 1950s can be regarded as the formative stage of organized tuberculosis care in Kyrgyzstan. During these years, the principal components of the future TB service were established: dispensary-based follow-up, sanatorium treatment, inpatient care, and specialized services for children and patients

with extrapulmonary tuberculosis. Although this period did not yet have the scientific and methodological foundation that would emerge later, it laid the groundwork for the subsequent development of phthisiology as an independent field within the national healthcare system.

2. Establishment of the Kyrgyz Research Institute of Tuberculosis and the Development of a National Research Tradition

The next major stage in the history of the tuberculosis service was the establishment of the Kyrgyz Research Institute of Tuberculosis (KRIT). By the mid-1950s, the network of TB facilities in the republic had expanded considerably. However, its further development required a unified scientific, clinical, organizational, and methodological center.

In 1957, the Kyrgyz Research Institute of Tuberculosis was established on the basis of the Republican Tuberculosis Dispensary [8,9,12]. The crea- tion of an institute with specialized clinical departments, experimental facilities, and laboratories marked a new stage in the development of tuberculosis care. Scientific research was initiated at the Institute, training programs for TB physicians and researchers were expanded, and a clinical base was established for surgical treatment and postoperative management of patients with tuberculosis.

During the first years of the Institute's activity, several research areas emerged that would subsequently shape the development of tuberculosis research in Kyrgyzstan. These included the epidemiology of tuberculosis across different climatic and geographical regions of the republic, the clinical characteristics of tuberculosis in children, the effectiveness of specific preventive measures, osteoarticular tuberculosis, surgical treatment, bacteriological diagnosis, and immunological processes associated with tuberculosis.

In 1961, the Institute held its first scientific session, published its first collection of research papers, and saw the successful defense of the first Candidate of Sciences dissertation completed at the Institute. These developments marked the transition from the organizational establishment of the Institute to the formation of a fully developed research tradition.

Over time, the Institute became a national center for specialist training, discussion of major clinical and organizational issues, preparation of methodological materials, and translation of research findings into routine healthcare practice.

A distinctive feature of this period was the gradual development of a vertically organized TB service. This model made it possible not only to provide treatment, but also to conduct active case finding, organize long-term follow-up, implement preventive measures among contacts, deliver health education, and monitor the epidemiological situation in different regions. Such an organizational structure was particularly important for Kyrgyzstan because of its diverse climatic and geographical conditions and the substantial proportion of mountainous and rural areas.

By the twentieth anniversary of KRIT, the Institute's clinical facilities included more than 400 beds, enabling the provision of care for patients with tuberculosis affecting different organ systems. Across the national TB service, the total number of beds had reached almost 6,000, including approximately 2,200 sanatorium beds. More than 20 tuberculosis dispensaries, over 40 TB offices, tuberculosis hospitals, and sanatoriums, including facilities for children and adolescents, were operating throughout the republic. By this time, the number of TB physicians had more than doubled, exceeding 360 specialists [12].

This expansion was not merely quantitative. The structure of specialized TB care also became increasingly diversified. At the Institute and in regional facilities, specialized departments were established to manage patients with more severe and complicated forms of tuberculosis requiring multidisciplinary care.

Tuberculosis surgery occupied a particularly important place in this system. At a time when the possibilities of pharmacological treatment were still limited, surgical methods played a major role in the management of destructive, chronic, and complicated forms of tuberculosis. Research at the Institute focused on improving surgical techniques, preoperative preparation, and anesthetic management. Organ-preserving reconstructive and plastic surgical procedures for tuberculosis of the genitourinary and skeletal systems were developed and successfully introduced into clinical practice.

At the same time, specialist training continued to expand. During the first two decades of the Institute's existence, 50 physicians completed clinical residency training. More than 300 physicians attended advanced training courses at the Institute, and a further 180 received workplace-based training. The Institute's clinical and experimental facilities supported the training of 45 researchers who obtained advanced academic degrees, including 7 Doctors of Sciences and 38 Candidates of Sciences [12].

Scientific activity during this period was broad in scope and closely linked to the practical needs of the TB service. One of the principal research areas was the epidemiology of tuberculosis and the development of evidence-based approaches to improving the organization of TB control, taking into account the specific characteristics of the republic.

Research was also conducted on anti-tuberculosis immunity, clinical and immunological criteria for disease activity, differential diagnosis, the effectiveness of immunotherapy, the characteristics of tuberculosis in children, BCG vaccination, and chemoprophylaxis.

An important achievement of tuberculosis research in Kyrgyzstan was the development of bacteriological diagnostics. At the KRIT microbiology laboratory, semi-industrial production of dry culture media was established. Beginning in 1972, the bacteriological laboratories of TB facil-

ities throughout the republic were centrally supplied with standardized dry culture-media kits intended for the diagnosis of tuberculosis.

The technology developed at KRIT was subsequently used to establish industrial production of dry culture media at the Tyumen Research Institute of Regional Infectious Pathology and was introduced into bacteriological practice in tuberculosis facilities across the Soviet Union. This work received the State Prize of the Kyrgyz SSR in Science and Technology and represented a notable contribution of Kyrgyz tuberculosis research that extended beyond the republic itself [12].

By the late 1970s, the Institute had become a recognized scientific and methodological center. Scientific meetings were held with the participation of leading specialists from across the Soviet Union, while monographs, methodological guidance documents, collections of research papers, conference proceedings, and bibliographic in dexes were published.

During the first two decades of the Institute's activity, approximately 1,000 scientific publications on tuberculosis were published [12].

3. Reform of the Tuberculosis Service

In the late 1980s, the tuberculosis service of Kyrgyzstan underwent a complex organizational restructuring. In 1988, the Kyrgyz Research Institute of Tuberculosis was merged with other research institutes under the Ministry of Health and became part of the Kyrgyz Research Institute of Ecology and Prevention of Infectious Diseases. Historical accounts of the TB service describe this period as unfavorable for tuberculosis control, as the republic effectively lost an independent organizational and methodological center dedicated specifically to tuberculosis [12].

In 1991, the Kyrgyz Research Institute of Tuberculosis was re-established as an independent institution. This decision represented an important step in preserving and further developing the national TB service under the new conditions following state independence [12].

During this period, it became increasingly clear that the approaches previously used for TB control were no longer sufficient. Rising tuberculosis incidence, the emergence and accumulation of drug-resistant forms of the disease, the social vul- nerability of patients, and the need to standardize treatment required a transition toward programmatic TB management. From the mid-1990s onward, tuberculosis care in the Kyrgyz Republic increasingly developed within the framework of long-term national TB programs [2, 3, 12].

In 1995, the country began implementing the World Health Organization-recommended DOTS strategy. DOTS subsequently formed the basis of the national **Tuberculosis-I Program**, approved by a resolution of the Government of the Kyrgyz Republic [12]. The main objective of the program was to stabilize the tuberculosis situation and subsequently reduce TB incidence, prevalence, and mortality.

For the Kyrgyz Republic, the introduction of DOTS required substantial restructuring of tuberculosis services. Priority was given to standardized short-course chemotherapy with directly observed treatment, strengthening laboratory diagnostics, regular cohort analysis of treatment outcomes, ensuring an uninterrupted supply of anti-tuberculosis medicines, and training healthcare workers.

An important organizational principle was the integration of specialized TB services with primary health care.

To coordinate implementation of the national program, a Republican Monitoring Center was established within the Institute. Systems for case registration, patient monitoring, and treatment outcome evaluation were subsequently further developed.

These changes laid the foundation for a transition from a predominantly facility-based model of tuberculosis care toward programmatic TB management, in which the effectiveness of the system was determined not only by the number of hospital beds and dispensaries, but also by the quality of data, treatment outcomes, patient pathways through the healthcare system, and accountability at every level of care.

4. The National Center of Phthisiology: The Modern Stage of Tuberculosis Service Development

The beginning of the twenty-first century marked a period of profound organizational and technological change for the tuberculosis service of the Kyrgyz Republic. The increasing burden of drug-resistant tuberculosis, the need to introduce international standards for diagnosis and treatment, the expansion of programmatic TB management, and the development of intersectoral colla- boration required a stronger coordinating role for the country's leading tuberculosis institution.

By that time, the Kyrgyz Research Institute of Tuberculosis had already effectively assumed the functions of a national coordinating center. In accordance with the Decree of the President of the Kyrgyz Republic dated March 30, 2004, Resolution No. 542 of the Government of the Kyrgyz Republic dated July 20, 2004, and Order No. 342 of the Ministry of Health of the Kyrgyz Republic, the Kyrgyz Research Institute of Tuberculosis was reorganized into the **National Center of Phthisiology under the Ministry of Health of the Kyrgyz Republic** [7, 12].

During the same period, regional and city tuberculosis dispensaries were reorganized into regional and city TB control centers, strengthening their coordinating role at the respective administrative levels.

One of the major challenges of this period was the spread of drug-resistant tuberculosis. While the main priorities of the 1990s had been the introduction of the basic components of the DOTS strategy and stabilization of the epidemiological situation, by the early 2000s the need for a sys-

tematic response to multidrug-resistant tuberculosis had become increasingly apparent.

In August 2003, a positive funding decision was received from the Global Fund to Fight AIDS, Tuberculosis and Malaria. This support made it possible to continue diagnostic, treatment, and training activities under the DOTS strategy and to initiate the implementation of DOTS-Plus in pilot areas of the country.

The successful introduction of DOTS-Plus depended critically on strengthening high-quality bacteriological diagnostics and drug susceptibility testing for Mycobacterium tuberculosis. In 2003, the Central Bacteriological Laboratory of the Kyrgyz Research Institute of Tuberculosis was designated as the National Reference Laboratory. The laboratory underwent an external proficiency assessment conducted by the supranational tuberculosis reference laboratory in Borstel, Germany, and its technical and material capacity was strengthened with support from international partners [12].

At the same time, clinical care for patients with MDR-TB continued to develop. In 2005, the first specialized department for the treatment of patients with multidrug-resistant tuberculosis was opened at the National Center of Phthisiology. Subsequently, care for patients with drug-resistant forms of tuberculosis was expanded in both the civilian healthcare sector and the penitentiary system. This period marked the transition from the treatment of a limited number of complex individual cases to the programmatic management of MDR-TB [12].

During 2013-2016, under the **Tuberculosis-IV Program**, priorities shifted toward addressing delayed diagnosis, unnecessarily prolonged hospitalization, infection control, and optimization of inpatient care. A model of fully outpatient tuberculosis treatment within primary health care facilities was developed.

During this period, the country also began implementing an electronic tuberculosis surveillance system, the national ES/TB-KG database, while rapid molecular diagnostic methods were introduced [4].

The development of molecular diagnostics represented another major stage in the modernization of TB services. The use of automated systems and rapid diagnostic tests made it possible to accelerate the detection of M. tuberculosis and drug resistance, reduce the timeto initiation of appropriate treatment, and improve the quality of clinical decision-making.

In a setting characterized by a high burden of drug-resistant tuberculosis, this development was particularly important: diagnosis was no longer merely a means of confirming disease but became a tool for selecting the most appropriate treatment strategy from the earliest stages of patient management [10].

The Tuberculosis-V Program for 2017-2021 focused on preventing further growth of drug-resistant tuberculosis and achieving continued reductions in TB incidence and mortality. During this period, greater emphasis was placed on patient-centred approaches, including TB case management, patient support throughout treatment, strengthening the capacity of primary health care services, development of sputum specimen transport systems, optimization of the laboratory network, and the introduction of new financing mechanisms for TB services [5].

These changes reflected a broader shift in the philosophy of tuberculosis care. Whereas earlier models had relied predominantly on inpatient and dispensary-based care, the modern approach increasingly emphasizes outpatient management, the involvement of primary health care, social support, infection control, laboratory confirmation of diagnosis, and individualized treatment.

For patients, this approach means less separation from their families and communities. For the healthcare system, it allows more efficient use of resources and may reduce the risk of nosocomial transmission of tuberculosis.

5. Research, Education, and International Collaboration

Research and education have always been among the core functions of Kyrgyzstan's leading tuberculosis institution. The National Center of Phthisiology has played an important role in developing scientific approaches to TB control, training healthcare professionals, preparing methodological and clinical guidance, studying the characteristics of tuberculosis in the national context, and translating research findings into routine healthcare practice [9-11].

Research priorities evolved in parallel with changes in the epidemiological situation. Increasing attention was given to evaluating the effectiveness of the DOTS strategy, studying drug resistance in Mycobacterium tuberculosis, identifying factors associated with unfavorable treatment outcomes, optimizing the management of MDR-TB, developing organizational approaches to DOTS-Plus implementation, and improving epidemiological surveillance.

In this respect, research conducted at the National Center of Phthisiology has remained closely linked to the practical needs of national tuberculosis programs.

International scientific collaboration has also played an important role. Specialists from the National Center of Phthisiology have participated in joint research projects with foreign universities, research institutions, and international organizations.

Areas of collaboration have included investigation of genetic factors associated with drug resistance in M. tuberculosis, application of molecular methods for the diagnosis of drug-resistant tuberculosis, studies of tuberculosis among specific population groups, phenotypic characterization of M. tuberculosis isolates, prevention of nosocomial TB transmission, operational research on modified shorter treatment regimens for MDR/RR-TB, and investigation of risk factors associated with the increasing burden of drug-resistant tuberculosis.

The National Center of Phthisiology has also made a substantial contribution to workforce development. The Center and specialized academic departments have provided training for TB physicians, laboratory specialists, primary health care physicians, healthcare workers in the penitentiary system, clinical residents, postgraduate researchers, and degree candidates.

According to materials of the National Center of Phthisiology, 460 training courses were conducted during the implementation of the national tuberculosis programs, involving more than 11,500 healthcare professionals [12].

The National Center of Phthisiology also serves as a clinical training base for students and postgraduate trainees from the Kyrgyz State Medical Academy named after I.K. Akhunbaev, the Kyrgyz-Russian Slavic University named after B.N. Yeltsin, and the Kyrgyz State Medical Institute for Retraining and Continuing Medical Education named after S.B. Daniyarov.

This provides continuity between clinical TB practice, undergraduate medical education, and postgraduate professional training.

Thus, the research and educational activities of the National Center of Phthisiology have become an important mechanism for the continued development of the national TB service. Through research, workforce training, clinical guidelines, international projects, and the introduction of new technologies, the Center has provided an essential link between global recommendations and the realities of healthcare delivery in the Kyrgyz Republic.

This role remains particularly important today, as effective TB control increasingly requires not only clinical interventions, but also data analysis, operational research, digital tools, intersectoral collaboration, and continuous professional development.

CONCLUSION

Over the past century, the tuberculosis service of the Kyrgyz Republic has evolved from the first specialized TB facilities into a modern national system for tuberculosis prevention, diagnosis, treatment, and control.

Beginning in 1926 with the earliest forms of organized TB care, the service gradually developed a network of dispensaries and sanatoriums, specialized inpatient facilities, pediatric TB services, tuberculosis surgery, care for patients with extrapulmonary tuberculosis, laboratory diagnostics, a national research tradition, and a system for specialist training.

The establishment of the Kyrgyz Research Institute of Tuberculosis represented a major milestone in the development of the national TB service. The Institute brought together clinical care, scientific research, organizational and methodological activities, and education. It became a center for specialist training, the development of research priorities, and the introduc tion of new approaches to tuberculosis diagnosis and treatment.

Its subsequent transformation into the National Center of Phthisiology consolidated its role as the country's leading institution responsible for coordinating national tuberculosis programs and advancing specialized TB care.

The history of the TB service demonstrates that its development has consistently been shaped by the major challenges of each period. These have included the high burden of tuberculosis, limited diagnostic capacity, the need to expand the service network, the development of surgical treatment, the emergence of drug resistance, heal thcare system reforms, the introduction of international TB control strategies, and the transition toward a patient-centred model of care.

Today, the tuberculosis service of the Kyrgyz Republic is entering a new stage of development. Its principal priorities include prevention, active case finding, high-quality laboratory diagnostics, treatment of MDR/RR-TB, implementation of contemporary treatment regimens, digitalization, social support for patients, and strengthening the role of primary health care.

The National Center of Phthisiology under the Ministry of Health of the Kyrgyz Republic remains the central institution within this system. Its role extends beyond the provision of specialized TB care to maintaining institutional and historical continuity, advancing tuberculosis research, training healthcare professionals, introducing innovations, providing methodological support to regional services, and coordinating the national response to tuberculosis.

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REFERENCES

[1] Law of the Kyrgyz Republic No. 65 of May 18, 1998, "On the Protection of the Population from Tuberculosis." Centralized Legal Information Database of the Kyrgyz Republic [Internet]. Available from: https://cbd.minjust.gov.kg/4-62/edition/942338/ru. Accessed June 4, 2026.

[2] National Program of the Kyrgyz Republic "Tuberculosis-II" for 2001–2005. Resolution No. 263 of the Government of the Kyrgyz Republic dated June 6, 2001. Centralized Legal Information Database of the Kyrgyz Republic [Internet]. Available from: https://cbd.minjust.gov.kg/53-47/edition/290947/ru. Accessed June 15, 2026.

[3] National Program "Tuberculosis-III" for 2006–2010. Resolution No. 331 of the Government of the Kyrgyz Republic dated May 6, 2006. Centralized Legal Information Database of the Kyrgyz

Republic [Internet]. Available from: https://cbd.minjust.gov.kg/53-205/edition/447875/ru. Accessed July 8, 2026.
[4] Tuberculosis-IV Program for 2013–2016. Resolution No. 325 of the Government of the Kyrgyz Republic dated June 10, 2013. Centralized Legal Information Database of the Kyrgyz Republic [Internet]. Available from: https://cbd.minjust.gov.kg/53-258/edition/879951/ru. Accessed June 15, 2026.
[5] Program of the Government of the Kyrgyz Republic "Tuberculosis-V" for 2017-2021. National Center of Phthisiology under the Ministry of Health of the Kyrgyz Republic [Internet]. Available from: https://tbcenter.kg/media/book/2023/01/30/programma-pravitelstva-kyrgyzskoi-respubliki-tuberkulez-v-na-2017-2021-gody.pdf. Accessed June 17, 2026.
[6] Program of the Cabinet of Ministers of the Kyrgyz Republic "Tuberculosis-VI" for 2023–2026. Resolution No. 119 of the Cabinet of Ministers of the Kyrgyz Republic dated March 3, 2023. Centralized Legal Information Database of the Kyrgyz Republic [Internet]. Available from: https://cbd.minjust.gov.kg/53-324/edition/1233942/ru. Accessed June 15, 2026.
[7] Regulation on the National Center of Phthisiology under the Ministry of Health of the Kyrgyz Republic. Resolution of the Cabinet of Ministers of the Kyrgyz Republic dated February 16, 2024. Centralized Legal Information Database of the Kyrgyz Republic [Internet]. Available from: https://cbd.minjust.gov.kg/230004344/edition/6112/ru. Accessed June 15, 2026.
[8] National Center of Phthisiology under the Ministry of Health of the Kyrgyz Republic. About the Center. [Internet]. Available from: https://tbcenter.kg/ru/info/about-us/. Accessed June 15, 2026.
[9] Department of Phthisiology, I.K. Akhunbaev Kyrgyz State Medical Academy. [Internet]. Available from: https://www.kgma.kg/ru/departments/clinical-departments/department-of-phthisiology. Accessed June 15, 2026.
[10] Clinical Guideline for the Diagnosis and Treatment of Drug-Resistant Tuberculosis. Bishkek: National Center of Phthisiology; 2023 [Internet]. Available from: https://tbcenter.kg/media/book/ 2023/12/04/kr-po-lu-tb-19-09-23.pdf. Accessed June 16, 2026.
[11] Guideline for the Diagnosis and Preventive Treatment of Tuberculosis Infection. Bishkek: National Center of Phthisiology; 2023 [Internet]. Available from: https://tbcenter.kg/media/book/ 2023/12/04/rukovodstvo-tbi-19-09-2023.pdf. Accessed June 16, 2026.
[12] Kadyrov A.S., Goncharova Z.K., Sytina L.I. The 60th anniversary of the establishment of the Kyrgyz Research Institute of Tuberculosis (National Center of Phthisiology) under the Ministry of Health of the Kyrgyz Republic. Science, New Technologies and Innovations of Kyrgyzstan. 2017;(8):108–114.

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