South Health and Policy. 2024; 3:130
doi: 10.56294/shp2024130

SHORT COMMUNICATION

Health strategies against multi-drug resistant tuberculosis in the Argentine context

Estrategias sanitarias frente a la tuberculosis multirresistente en el contexto argentino

Bonanno Mariano Guillermo[1]

[1]Universidad Abierta Interamericana, Facultad de medicina y Ciencias de la Salud Carrera de Medicina. Buenos Aires, Argentina.

Cite as: Guillermo BM. Health strategies against multi-drug resistant tuberculosis in the Argentine context. South Health and Policy. 2024; 3:130. https://doi.org/10.56294/shp2024130

Submitted: 12-08-2023 **Revised:** 02-01-2024 **Accepted:** 21-06-2024 **Published:** 22-06-2024

Editor: Dr. Telmo Raúl Aveiro-Róbalo

Corresponding Author: Bonanno Mariano Guillermo

ABSTRACT

Introduction: since 2010, Argentina has faced significant challenges in tackling multidrug-resistant tuberculosis (MDR-TB), especially in adolescents and children. Despite the legal framework established by National Law No. 24.695, inequalities persisted in the application of public policies, hindering the prevention, diagnosis and treatment of this disease throughout the country.
Development: the epidemiological situation of MDR-TB worsened due to therapeutic abandonment, the inappropriate use of antibiotics and the limited availability of rapid diagnostics. Although tools such as GeneXpert and Genotype MTBDRplus were incorporated, their coverage was limited. In terms of treatment, Argentina adopted standardized regimens recommended by the WHO, but these proved to be lengthy and ineffective in pediatric populations. The use of modern drugs such as bedaquiline and linezolid was promoted, although access to them was restricted. The specific needs of children and adolescents were not adequately addressed, despite the enactment of Law No. 26.061. On the other hand, Resolution No. 680/2022 promoted shorter and oral regimens, and the psychosocial impact of treatment was recognized, although without concrete comprehensive strategies.
Conclusions: although regulatory and technical advances have been made, Argentina still needs to consolidate effective policies to guarantee an equitable approach to MDR-TB in vulnerable populations. Only a coordinated strategy, based on scientific evidence and rights, will be able to transform the management of drug-resistant tuberculosis and ensure universal access to healthcare.

Keywords: Tuberculosis; Multidrug Resistance; Public Policy; Diagnosis; Adolescence.

RESUMEN

Introducción: desde el año 2010, Argentina enfrentó importantes desafíos en el abordaje de la tuberculosis multirresistente (TB-MDR), especialmente en adolescentes y niños. A pesar del marco legal establecido por la Ley Nacional N.° 24.695, persistieron desigualdades en la aplicación de políticas públicas, dificultando la prevención, diagnóstico y tratamiento de esta enfermedad en todo el territorio nacional.
Desarrollo: la situación epidemiológica de la TB-MDR se agravó debido al abandono terapéutico, el uso inadecuado de antibióticos y la escasa disponibilidad de diagnósticos rápidos. Si bien se incorporaron herramientas como GeneXpert y Genotype MTBDRplus, su cobertura fue limitada. En cuanto al tratamiento, Argentina adoptó esquemas estandarizados recomendados por la OMS, pero estos resultaron prolongados y poco efectivos en poblaciones pediátricas. Se promovió el uso de fármacos modernos como bedaquilina y linezolid, aunque su acceso estuvo restringido. Las necesidades específicas de niños y adolescentes no fueron adecuadamente contempladas, pese a la vigencia de la Ley N.° 26.061. Por otro lado, la Resolución

N.º 680/2022 impulsó esquemas más breves y orales, y se reconoció el impacto psicosocial del tratamiento, aunque sin estrategias integrales concretas.
Conclusiones: aunque se lograron avances normativos y técnicos, Argentina aún requiere consolidar políticas efectivas para garantizar un abordaje equitativo de la TB-MDR en poblaciones vulnerables. Solo una estrategia articulada, basada en evidencia científica y en derechos, podrá transformar el manejo de la tuberculosis resistente y asegurar el acceso universal a la salud.

Palabras clave: Tuberculosis; Multirresistencia; Políticas Públicas; Diagnóstico; Adolescencia.

INTRODUCTION

From 2010 to the present, the approach to tuberculosis (TB) in Argentina has been framed by a set of public policies that, although they have evolved, still face significant challenges in the face of the growing phenomenon of multidrug-resistant tuberculosis (MDR-TB) and its impact on vulnerable populations such as children and adolescents. Since the enactment of National Law No. 24.695, establishing the legal framework for tuberculosis prevention and control in the country, strategies have been promoted to improve case detection, treatment, and follow-up. However, the effective implementation of this law and its adaptation to the changing scenario of bacterial resistance has been uneven throughout the country.[1,2]

The epidemiological situation of MDR-TB has worsened over the last decade. Factors such as treatment abandonment, inappropriate use of antibiotics, and limited rapid diagnostic capacity have favored the emergence of resistant strains. This scenario was reflected in reports from the Ministry of Health, which showed a sustained increase in MDR-TB cases, particularly in urban areas with high social vulnerability. In response, Argentina adhered to international guidelines promoted by the WHO, incorporating diagnostic tools such as GeneXpert and Genotype MTBDRplus, which can detect the presence of Mycobacterium tuberculosis and its resistance to rifampicin and isoniazid within a few hours. Despite their effectiveness, coverage of these tools remains limited in many provinces, especially in the north of the country.[3,4]

Regarding treatment, the national health policy adopted standardized MDR-TB regimens, which aligns with WHO recommendations. However, these regimens—until recently lengthy, costly, and associated with significant adverse effects—were not always effective, especially in children and adolescents. In response, the use of more modern drugs such as bedaquiline and linezolid was promoted, although regulatory, logistical, and economic issues limited access to them. In Argentina, these drugs are not widely available and require special authorization, which delays their use in settings where the timing of treatment initiation can be crucial.[5,6]

Current legislation does not explicitly address the needs of the pediatric and adolescent population affected by MDR-TB. Although the National Tuberculosis Control Program provided actions for these age groups, in practice, there was a lack of effective integration between levels of care, limited professional training for early diagnosis, and poor availability of pediatric formulations. This contrasts with global efforts to incorporate a comprehensive health and rights approach to the care of children and adolescents, in line with Law No. 26.061 on the Comprehensive Protection of the Rights of Children and Adolescents.[7,8]

In recent years, some regulatory advances have led to the incorporation of rapid diagnostic tests into national protocols and the promotion of clinical studies to evaluate new therapeutic combinations. Resolution No. 680/2022 of the Ministry of Health, for example, updated recommendations on the clinical management of MDR-TB, incorporating shorter therapies and oral regimens based on scientific evidence. This resolution marked a milestone by formally recognizing the need to adapt treatments to new resistance profiles. However, its practical implementation depends on strengthening the health system in terms of infrastructure and human resources.[9,10]

In turn, Mental Health Law No. 26.657, in force since 2010, although not directly linked to TB, became relevant when considering the psychological impact that prolonged treatment can have on adolescents with resistant tuberculosis. Treatment adherence, often weakened by the socioeconomic and emotional conditions of young patients, requires a comprehensive and interdisciplinary approach that includes not only pharmacotherapy but also psychosocial support. In this regard, public policies have been insufficient to address this problem dimension.[11,12]

Intersectoral coordination between health, education, and social development has been identified as a key factor in reducing the incidence of TB in adolescents. However, its implementation has been uneven. While some jurisdictions have made progress in school protocols for early detection and case follow-up, in others, lack of knowledge or resources has limited the capacity for action. Successful experiences in cities such as Rosario and Mendoza have shown that when there are trained interdisciplinary teams, coordination with health centers, and institutional commitment, the results in terms of adherence and recovery are significantly better.[13,14]

Regarding financing, Argentina has received support from international organizations such as the Global

Fund to Fight AIDS, Tuberculosis, and Malaria. These funds were key to expanding the availability of rapid tests, training health personnel, and improving epidemiological surveillance. However, dependence on these external resources highlights the structural fragility of the national health system in sustaining robust public policies in the long term against chronic and infectious diseases such as drug-resistant tuberculosis. In terms of recent public policies, the National Response Plan for HIV, STIs, Viral Hepatitis, and Tuberculosis 2022–2025 proposed an integration of strategies with a focus on key and prioritized populations, including adolescents. This plan recognized the need for youth-friendly services and the strengthening of early diagnosis in primary care centers. However, the effectiveness of this plan depends on its uptake by local health teams, which often face work overload, lack of training, and poor inter-institutional coordination.[15,16]

From a scientific standpoint, important research on drug-resistant tuberculosis has been conducted in Argentina, especially by public institutions such as ANLIS-Malbrán and various national universities. These contributions have been key to understanding the genetic dynamics of resistance, improving molecular diagnosis, and proposing therapeutic protocols adapted to the local epidemiological profile. However, links between research and clinical practice still need to be strengthened, especially in effectively translating scientific knowledge into the design and implementation of health policies.[17,18]

The challenge of addressing MDR-TB in adolescents and children also involves addressing the structural inequalities that determine health. Overcrowding, malnutrition, educational disruption, and lack of access to basic services are social determinants that directly influence the onset and worsening of this disease. Health legislation must be complemented by integrated social policies that attack these root causes; otherwise, any biomedical effort risks being insufficient.[19,20]

Finally, although Argentina has made significant regulatory and technical progress in the fight against tuberculosis, there is still a long way to go to ensure equitable, effective, and rights-based care for children and adolescents with drug-resistant tuberculosis. MDR-TB requires urgent, sustained responses consistent with the country's epidemiological and social context. The availability of medicines, training for health personnel, early diagnosis, personalized follow-up, and a comprehensive approach must be consolidated as the pillars of a robust national strategy aligned with equity, universality, and health justice principles.[21]

The fight against drug-resistant tuberculosis cannot be limited to the medical or institutional sphere. It requires collective action involving different levels of government, the scientific community, social organizations, and the affected communities. Only through this comprehensive and participatory approach will it be possible to transform the approach to MDR-TB in Argentina and move toward a genuine guarantee of the right to health for all.

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FINANCING

None.

CONFLICT OF INTEREST

Authors declare that there is no conflict of interest.

AUTHORSHIP CONTRIBUTION

Conceptualization: Bonanno Mariano Guillermo.
Data curation: Bonanno Mariano Guillermo.
Formal analysis: Bonanno Mariano Guillermo.
Drafting - original draft: Bonanno Mariano Guillermo.
Writing - proofreading and editing: Bonanno Mariano Guillermo.

https://doi.org/10.56294/shp2024130 ISSN: 3072-7677