Pathways to End Tuberculosis - Overcoming Challenges to Achieve Global Health Goals

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Tuberculosis (TB) remains a pressing global health challenge, with millions of people falling ill and losing their lives to this infectious disease each year. Despite significant progress in TB control efforts, there are still formidable challenges to be addressed on the path to achieving TB elimination by 2030. The articles presented shed light on the complexities of TB care, including issues such as stigma, mental health implications, drug resistance, underdiagnosis, and the impact of socio-economic factors and the COVID-19 pandemic.

One of the key themes highlighted in these articles is the critical role of education and awareness in combating <u>TB stigma and promoting mental health</u> support for individuals affected by the disease. Efforts to dispel myths and misunderstandings surrounding TB, as well as the integration of mental health services into primary healthcare, can contribute significantly to improving treatment outcomes and reducing the burden of both TB and mental health conditions.

Successfully translating drug and vaccine candidates from research to patients requires early problem-solving and a clear Target Product Profile (TPP) to navigate regulatory challenges and enhance success chances. Using a Target Product Profile (TPP) can help developers navigate regulations and improve success rates by reverse planning, identifying risks early, and enhancing access to life-saving medications globally, which is crucial component in TB drug development.

The challenges posed by <u>drug resistance</u>, <u>underdiagnosis</u>, <u>and treatment adherence</u> underscore the need for innovative approaches in TB care. Rapid diagnostic tests, effective treatment regimens, and increased investment in research and development are essential to address these challenges. The articles emphasize the importance of a multi-sectoral approach involving all stakeholders, including governments, healthcare providers, community organizations, and individuals affected by TB, to collectively work towards the goal of TB elimination.

The efforts and achievements of <u>Kerala in the fight against Tuberculosis (TB)</u> are highly commendable and serve as a beacon of success in the global battle against this infectious disease. Kerala's proactive approach towards TB elimination, involving innovative strategies, successful public-private partnerships, improved case management, and the rollout of TB preventive therapy, has set a remarkable example for other states and countries to follow.

India's National Tuberculosis Elimination Program has made significant strides in TB control efforts, but challenges persist, particularly in addressing the socio-economic factors that influence TB outcomes. Political commitment, rapid molecular diagnostics, effective treatment regimens, and consistent supervision and monitoring are key components of successful TB control programs. Collaboration and collective efforts are essential to overcome these challenges and achieve the TB elimination target by 2025.

<u>The impact of the COVID-19 pandemic on TB control efforts</u> serves as a stark reminder of the fragility of global health systems and the need for resilient and adaptable healthcare systems. As we continue to navigate the challenges posed by TB and other infectious diseases, it is imperative that we prioritize investments in public health infrastructure, research, and innovation to build a more resilient and prepared healthcare system for the future.

The economic burden of tuberculosis in India is a pressing issue that disproportionately affects low-income households and tribal populations. The high out-of-pocket expenses and catastrophic costs associated with TB treatment contribute to financial strain and impoverishment among affected individuals. Initiatives like the AB-PMJAY scheme show promise in reducing these financial barriers, but more research is needed to assess their impact and effectiveness. A multi-faceted approach that addresses the economic challenges of TB is necessary to ensure access to affordable and quality care for all individuals in India.

In conclusion, the journey towards TB elimination is a complex and multifaceted one, requiring collaboration, innovation, and unwavering commitment from all stakeholders. By addressing the challenges outlined in these articles and working together towards our shared goal of ending TB, we can pave the way for a healthier and more equitable future for all.