

Pretomanid: The life-saving drug to combat Pakistan's TB crisis

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Madam, Tuberculosis (TB) is a disease that can be prevented and is typically curable. Yet, until COVID-19 took over, TB was the most infectious disease in the world. In 2023, TB once again surpassed COVID-19 and killed approximately twice as many people as HIV/AIDS.¹ As the leading cause of illness and mortality in Pakistan, the incidence of drug-resistant TB presents a significant public health challenge, as reported by the National Tuberculosis Prevention Programme (NTP).¹

MDR-TB is defined as TB resistant to both isoniazid and rifampicin, two of the most effective first-line anti-TB drugs. In contrast, XDR-TB is defined as TB resistant to rifampicin, any fluoroquinolone, and one of either bedaquiline or linezolid.¹ Pretomanid, a novel medication that has received approval from the Federal Drug Authority (FDA) for treating both forms of tuberculosis in conjugation with bedaquiline and linezolid, has shown promise against the rising prevalence of drug-resistant TB caused by MDR and XDR mycobacterium species.² In 2022, the 6-month regimens BPaLM (BPaL and moxifloxacin) and BPaL (bedaquiline, pretomanid, and linezolid) were recommended by the WHO for mitigation of the majority of drug-resistant TB types.³

In a retrospective cohort analysis, Khan et al. explored the BPaLM/BPaL regimen in two Pakistani provinces, Punjab and Khyber Pakhtunkhwa. The results were astonishing, with 96% of people cured and only 3% fatalities. The regimen showed remarkable efficacy and cost-effectiveness.⁴ Conradie et al. also reported that a 6-month course of bedaquiline, pretomanid, and linezolid

successfully eliminated resistant strains of TB in 90% of treated patients.²

In conjunction with bedaquiline and linezolid, pretomanid has boosted survival rates and produced significant savings for patients and health systems. It has also improved drug-resistant TB treatment's length, effectiveness, and tolerability.⁵ The National Tuberculosis Programme and relevant health authorities should promote the use of pretomanid, ensuring its accessibility to patients across all provinces. This step will be critical in reducing mortality, preventing outbreaks, and easing the fiscal strain on the healthcare system.

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