Extensively Drug-Resistant Tuberculosis (XDR-TB) in Pakistan: Where do we Stand

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Tuberculosis is one of the leading causes of death worldwide, and one of the major public health problems in Pakistan. Pakistan ranks sixth amongst the TB high-burden countries in the world and harbors 63% of the TB burden in the Eastern Mediterranean Region of WHO. Approximately 420,000 new TB cases emerge every year and among those half are sputum smear positive. The emergence of multidrug-resistant (MDR) TB and XDR-TB is a serious concern in the country. MDR-TB means resistance of Mycobacterium tuberculosis to both rifampicin and isoniazid. XDR-TB is defined as MDR-TB plus resistance to a fluoroquinolone and at least one second-line injectable agent (amikacin, kanamycin and/or capreomycin).

In 2001, the government of Pakistan declared TB a national emergency and since then progress has been steady to fight tuberculosis. The case detection rate for Pakistan rose from 13% in 2002 to 67% in 2007, close to WHO’s target of 70 percent. The DOTS treatment success rate has improved from 79 to 88% between the 2003 and the 2006 cohort, thus surpassing WHO’s target of 85 percent. The swift rise in case detection and the number of TB cases reported each year since 2000 is the result of nationwide efforts of private practitioners, community volunteers and general public.

In Pakistan the new MDR-TB cases rose from 2.0% in 2003 to 3.2% in 2007 thus leading Pakistan to share about 57% of the MDR-TB burden within WHO’s Eastern Mediterranean Region. In 2004 MDR-TB prevalence of 28% was reported by the Armed Forces Institute of Pathology, Rawalpindi, while, Aga Khan University Hospital, Karachi reported these figures as 47% in 2006 and PMRC Research Center at Mayo Hospital, Lahore reported 17% MDR TB with 2% CDR TB. Increasing trend of MDR-TB from 3.1% in 1981, 7.7% in 1989, 23% in 2003 and 27% in 2008 has been observed in many studies conducted in Pakistan.

Similar results of increasing resistance against MDR TB were reported from Rawalpindi. Recently 22 cases of XDR TB have also been reported from Pakistan from 1990 to 2007 while, another study reported an increasing frequency of XDR TB in Pakistan from 1.5% in 2006 to 4.5% in 2009.

XDR-TB can be cured using five or more drugs as an aggressive treatment for up to two years. Early identification of XDR-TB may confer successful treatment and cure. Antibiotics like meropenem/clavulanate combination, linezolid, moxifloxacin and thioridazine combination, show promise as reasonable alternates against XDR-TB.

The dilemma is the under reporting of XDR-TB from Pakistan and WHO mentions that there is no data on XDR-TB from Pakistan. The authors from Pakistan wrote articles on prevalence of XDR-TB in Pakistan but WHO website shows Pakistan a state free of this resistant disease. It is a matter of concern that international authorities and our policy makers are not taking this issue as of urgent importance. There is a need to sensitize them so that they mention Pakistan in the list of threatened countries and focus more in early and proper case identification of these cases along with treatment support.

The National TB Control Program also needs immense support as it still faces challenges especially after devolution where TB planning has shifted from the national to the district level. There is a dire need to improve and strengthen the technical capacities at the provincial and district levels.

References


