

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

Sir,

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).

Since 2001, when the government of Pakistan declared TB a national emergency, 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 percent¹. 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.

The National TB Control Program still faces challenges. As TB planning shifts from the national to the district level, technical capacities at the provincial and district levels require strengthening. New MDR-TB cases rose from 2.0% in 2003 to 3.2% in 2007. Pakistan accounts for 57% of the MDR-TB burden within WHO's Eastern Mediterranean Region¹. Similarly, MDR-TB prevalence of 28% was reported by the Armed Forces Institute of Pathology, Rawalpindi in 2004² while 47% by the Aga Khan University Hospital, Karachi in 2006³. XDR TB has recently been reported from Pakistan. Hasan et al have reported 22 XDR cases seen from 1990 to 2007⁴. In another study, frequency of XDR TB in Pakistan increased from 1.5% in 2006 to 4.5% in 2009⁵. XDR-TB can be cured with aggressive treatment for up to two years, with use of five or more drugs to which the infecting isolate was not resistant. Early identification of XDR-TB may confer successful treatment and cure. Few agents like meropenem/clavulanate combination, linezolid, moxifloxacin and thioridazine combination, show promise as reasonable alternatives against XDR-TB.

The dilemma is the underreporting of XDR TB in Pakistan at international level. WHO mentions that there is no data of XDR TB from Pakistan¹. 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^{4,5}. It is a matter of concern that international authorities and our government take this issue insignificant. There is a dire need to stir up the authorities so that they mention our country in the list of threatened countries. In this way we will be focused in the TB control programmes by major agencies of the world and we will get funds and resources to develop highly equipped laboratories with facilities to detect XDR TB cases.

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