

New TB strain compounds HIV pandemic

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The World Health Organisation's announcement confirming the emergence of extreme drug-resistant (XDR) strains of tuberculosis in Africa, eastern Europe and the United States is worrying in itself, but it also opens an ominous new chapter in the evolution of the HIV pandemic. The implications for the health and well-being of Australians are serious.

WHO research indicates that of 9 million cases of TB in the world, some 180,000 cases can now be classified as XDR.

Thanks to decades of over-prescription of TB drug therapies, so-called multi-drug resistant strains of the disease have become quite common, and can only be adequately treated with second-line drugs. But the new XDR strain has virtually beaten our drug-dependent defences.

In one study of 544 TB patients in rural South Africa reported in *The Guardian*, 221 had the multi-drug resistant strain and 53 had XDR-TB. Of these 53, 52 died within an average of 25 days.

But while total deaths from XDR-TB are still very low, it is the linkage with HIV that should ring alarm bells around the world. In the South African study, all of those with XDR-TB were also HIV-positive. And in the United States, which along with South Africa responded to the emergence of HIV with a recklessness that greatly increased HIV caseloads, TB caseload is now rising alarmingly.

The emergence of XDR-TB should shake the complacent belief that universal distribution of cheap antiretrovirals will bring the global HIV pandemic under control. By dramatically prolonging the lives of those with HIV, short-term reliance on yet another magic-bullet drug therapy inadvertently will create a vast global pool of people also at risk of succumbing to XDR-TB. Unlike the HIV virus, which is weak and difficult to transmit and manageable after infection, XDR-TB is virulent, transmitted in aerosol form by sneezing, coughing and kissing. And it is lethal to those with HIV infection.

Australia got on top of domestic HIV infection 20 years ago. But we must now understand that past success does not confer future immunity from either HIV or its new pale outsider, XDR-TB.

The link between HIV and XDR-TB also poses a serious threat in our neighbourhood. Papua New Guinea is now in the clutches of a generalised HIV epidemic that may have already infected up to 100,000 people. Its fragile basic health services are collapsing under the challenge of HIV infection. HIV is spreading in PNG unimpeded by coherent prevention strategies, or adequate testing, treatment and care for those with the virus.

In Solomon Islands, HIV infection will inevitably take hold unless radical and effective preventive action is taken.

The global HIV pandemic is getting worse, not better. The immense tragedy of HIV is that the global pandemic was completely avoidable and manageable. But beyond a point, prevention becomes redundant as first HIV, and now possibly XDR-TB, takes hold of a population.

The emergence of XDR-TB poses a potential threat to international travel, tourism and free movement of peoples that would dwarf the impact of SARS. As inveterate travelers, whose economic growth and prosperity depends greatly on easy and cheap air travel, Australians have much to lose from the emergence of XDR-TB in our region.

The evidence is that we cannot fight XDR-TB directly with existing TB drug therapies. So we must fight it indirectly including especially by draining the swamp of HIV infection.

We must junk the illusion that we can live indefinitely with a stable global pool of HIV positive infections. The Australian model has provided the world with the evidence and strategic direction about what works to prevent HIV infection. Thanks to the dedication of WHO, UNAIDS and the emergence of such new institutions as the Global Fund and the Gates Foundation increased funds are beginning to flow where they are most needed to provide HIV care and treatment. But we now need to mobilise around HIV prevention as well as treatment and care, and to commit ourselves to integrated and effective HIV (and perhaps XDR-TB) prevention strategies leading to the complete elimination of HIV. This will take decades, but the emergence of XDR-TB is a dramatic warning that we need to start now.