Case study: XDR-TB

A disaster in the making?

In April 2014 the leading medical journal the 'Lancet' published a study of 107 patients who were diagnosed with and treated for 'extensively drug-resistant TB' (XDR-TB) in South Africa. XDR-TB is a form of tuberculosis (TB) that is resistant to both first- and second-line drugs, meaning there are very few treatment options left for patients.

By comparison, multidrug-resistant (MDR) TB is resistant to first-line treatment – that given initially to patients. After two years nearly half of the patients in the study were dead, and after five years almost three-quarters. Most samples of bacteria (though only available for around half of the patients) were resistant to at least eight different drugs. Some were resistant to ten.

The World Health Organization (WHO) has called for an end to the global TB epidemic and has developed an End TB Strategy, which provides a framework for tackling TB from 2016 onwards, with priority actions for stamping out MDR-TB (including XDR-TB). Currently around 4 per cent of new cases and 21 per cent of previously treated cases of TB are multidrug-resistant, and 9 per cent of patients with MDR-TB have what is classed as XDR-TB.

In South Africa multidrug-resistant disease is on the rise. In 2011 there were 500 confirmed cases of XDR-TB, and many more that were not confirmed. The editorial accompanying the recent study in the 'Lancet' described MDR-TB, including XDR-TB, as "an out of control problem with potentially vast and devastating repercussions for global public health". Already incidences in India, China and Russia account for more than half of all MDR-TB cases. XDR-TB has also been described in Italy and eastern Europe.

According to the South African study, one of the reasons that the epidemic continues to spread in the country is that when patients fail to respond to treatment there is nowhere for them to go except back to their communities. This means that they often end up transmitting the disease to others back home. WHO estimates that another $2 billion on top of the $6 billion already spent globally on tackling TB is required to bring the epidemic under control.

Drastic measures

While improving compliance (patients taking their medication as required) and infection control could have an impact, some suggest that the situation is so serious that drastic social measures are

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needed. One option is to change the policy that hospitalised patients lose social welfare benefits, something that currently encourages patients to discharge themselves and mix with the general population.

A tougher stance would mean forcibly detaining people with drug-resistant TB. WHO acknowledges that if a patient with XDR-TB refuses treatment and presents a danger to the public, then, as a last resort, "limiting that individual's human rights may be necessary to protect the wider public".

International law, such as the European Convention for the Protection of Human Rights and Fundamental Freedoms, does allow for such action if other measures have failed. However, in South Africa legislation allowing health authorities to act to contain infectious diseases conflicts with rights laid down in the country's Bill of Rights, which protects human dignity and freedom.

It is a difficult decision to remove someone's freedom in order to protect public health. Safeguards should ensure that it happens only when other avenues have been explored and the disease is serious enough to warrant such drastic action.

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