



## Legal Power and Legal Rights — Isolation and Quarantine in the Case of Drug-Resistant Tuberculosis

Wendy E. Parmet, J.D.

The recent case of Atlanta attorney Andrew Speaker has focused attention on the role of compulsory isolation and quarantine in tuberculosis control. In May, after being diagnosed with a

drug-resistant form of tuberculosis, Speaker flew to Europe for his wedding and honeymoon. While he was there, laboratory tests at the Centers for Disease Control and Prevention (CDC) indicated that Speaker's infection was extensively drug-resistant (XDR). Although accounts of what followed vary, it is known that the CDC contacted Speaker and asked him to stay in Italy while they tried to determine what to do. Fearing isolation in an Italian hospital, Speaker flew to Prague and then Montreal, bypassing his inclusion on the federal no-fly list, which doesn't apply to flights outside the United States. In Montreal, Speaker rented a car; then he drove into

the United States, thanks to the help of a border agent who disregarded a detention order. Speaker then went to a New York hospital, where he was met with a CDC order restricting his movement and requiring him to cooperate with health officials — reportedly the first such federal order issued in more than 40 years.

Weeks later, while Speaker was being treated at the National Jewish Medical and Research Center in Denver, laboratory tests revealed that he did not have XDR tuberculosis but instead had multidrug-resistant (MDR) tuberculosis. MDR tuberculosis is resistant to the first-line drugs isoniazid and rifampin. XDR tuberculosis is also

resistant to a quinolone and to an injectable second-line drug (see table).

Speaker's case provoked a flurry of media attention and public outrage. During hearings, Representative Bennie Thompson (D-MS), chair of the House Homeland Security Committee, exclaimed, "We've dodged a bullet. When are we going to stop dodging bullets and start protecting Americans?"<sup>1</sup> The implication was clear: tuberculosis carriers threaten the nation. Like terrorists, they must be thwarted by enhanced security measures, including the vigorous application of isolation and quarantine. Lost in the debate was the recognition of legal checks on the use of compulsory isolation and quarantine as well as the importance of such checks to protect the public health.

Although the terms are often used interchangeably, public

**Drugs to Which MDR and XDR Tuberculosis Are Resistant, According to the World Health Organization Definitions.**

**MDR tuberculosis**

Isoniazid

Rifampin

**XDR tuberculosis**

Isoniazid

Rifampin

Quinolone\*

At least one of the following:

Kanamycin

Capreomycin

Amikacin

\* Quinolones are ciprofloxacin, ofloxacin, levofloxacin, and moxifloxacin.

health practice distinguishes between isolation, which applies to someone, such as Speaker, who is known to be contagious, and quarantine, which applies to not-yet-ill people who or goods that may have been exposed to a disease. The undertaking of both isolation and quarantine may be voluntary or compelled by law. Although tuberculosis is more commonly addressed by isolation than by quarantine, thousands were quarantined in their homes and other facilities in Asia and Canada during the 2003 severe acute respiratory syndrome (SARS) outbreak. The use of quarantine has also been widely discussed in connection with a possible influenza pandemic, although federal plans note that it may have limited efficacy for so highly contagious a disease.

Both the states and the federal government have the authority, in appropriate cases, to compel isolation and quarantine. The states derive their authority from their police power, the sovereign author-

ity they retain under the Constitution. Although the federal government lacks a general police power, it has long used its authority for regulating international and interstate commerce to quarantine interstate or international travelers or commerce. Today, Section 361 of the Public Health Service Act authorizes the Department of Health and Human Services (which acts through the CDC) to apprehend, detain, and forcibly examine persons to prevent certain communicable diseases (specified by the President) from entering the country or traveling across state lines. Tuberculosis and types of influenza with pandemic potential are among the listed diseases.

Traditionally, courts have interpreted the authority of the states and the federal government broadly, giving great deference to public health officials. Still, even broad authority is not unfettered. Detained persons have a right to a court review of their detention's legality. Moreover, constitutional guarantees of equal protection and due process must be respected.

These safeguards are critical because the power to impose isolation and quarantine can be and historically often has been used in an abusive and discriminatory manner. For example, when bubonic plague struck San Francisco in 1900, the board of health imposed a quarantine drawn to include the homes of Chinese Americans but exclude the homes and businesses of white residents. A federal court found the quarantine unconstitutional. Although blatantly discriminatory measures may be unlikely today, studies of New York City's use of isolation orders for tuberculosis in the 1990s show that more than 90% of the people detained were non-

white and more than 60% were homeless.<sup>2</sup> Although these figures may reflect the democracy of non-compliant patients with tuberculosis in New York City at that time, the fact that the most potent public health tool was used primarily against marginalized, nonwhite persons underscores the need for legal oversight — if only so that affected communities can be assured of the absence of discrimination.

In recent decades, courts have clarified the legal rights of patients with tuberculosis who are subject to compulsory isolation. Drawing an analogy between isolation orders and civil commitment for mental illness, courts have affirmed that patients who are isolated by law have many procedural due-process rights, including the right to counsel and a hearing before an independent decision maker. States must also provide “clear and convincing” evidence that isolation is necessary to prevent a significant risk of harm to others. Most important, some courts have held that isolation must be the least restrictive alternative for preventing such a risk. If the government can protect public health without relying on involuntary detention, it must and should do so.

Many important questions remain. First, courts have not decided how long someone may be held before a hearing is offered or what procedures are necessary in the event of a mass quarantine. Courts have also not yet decided what probability of risk justifies short-term or long-term detention. Nor have they clarified what evidence is needed to determine that a person is or may be infectious or how infectious a person must be to justify isolation. Most critical, courts have not ex-

plained what must be shown to conclude that a patient is non-compliant so that detention is the least restrictive alternative. In tuberculosis cases, courts have upheld detention when a patient has failed, like Speaker, to follow medical advice. But they have not considered how forcefully that advice must be given or what, if anything, the government has to do to facilitate compliance. Thus it is unclear whether the CDC was required to provide Speaker with a safe way home in order to consider him noncompliant and requiring detention.

Another critical question is whether less restrictive tuberculosis-control programs must be in place before isolation can be considered the least restrictive alternative. For example, during the 1990s tuberculosis epidemic, New York City did not rely only on isolation orders; it increased funding for tuberculosis control and directly observed therapy and granted the commissioner of health the authority to require directly observed therapy — measures that researchers credit with helping to stem the epidemic.<sup>2</sup> Courts have pointed to the failure of particular patients to comply with directly observed therapy as a justification for detention.<sup>3</sup> This precedent raises the possibility that compulsory isolation might not be found constitutional in the absence of a directly observed therapy program.

Directly observed therapy is not, however, the only possible less restrictive alternative. During the 2003 SARS epidemic, the government of Ontario issued few compulsory quarantine orders. Instead, it relied heavily on voluntary quarantines either in homes or, for health care workers, in workplac-

es. In addition, the government provided social support and compensation for quarantined persons.<sup>4</sup> Such measures respond to the concerns of affected populations and can facilitate compliance with public health advice. They can also be viewed — although they are unlikely to be required by courts — as less restrictive ways of reducing the risk of transmission.

However, in this post-9/11, post-SARS era, public health officials often feel compelled to exercise compulsory powers. Hence in 2005, the CDC published proposed regulations calling for an expanded role for isolation and quarantine without ensuring all the individual rights courts have required.<sup>5</sup> These regulations, which are still under review by the CDC, would authorize short-term provisional quarantines without any hearing for up to 3 business days. Persons subject to nonprovisional quarantine would be entitled to a hearing, but no lawyer would be provided and there would not be an independent decision maker. Moreover, the CDC would be able to isolate people without showing that they posed a significant risk to others or that isolation was the least restrictive alternative.

The story of Andrew Speaker shows the difficult choices that public health officials face when they contemplate using their powers for isolation and quarantine. Given the rapidity with which diseases may spread around the globe, and the lethality of XDR tuberculosis and other emerging infections, health officials must be proactive. Unfortunately, in their need to act quickly, they may, as in the Speaker case, rely on information that later is found

faulty. Although understandable, this may undermine public trust in public health officials.

Compulsory isolation and quarantine alone cannot stop the spread of XDR tuberculosis. Moreover, excessive reliance on compulsory measures can lull the public into a false sense of security and at the same time prompt people who are at risk to do exactly what Speaker did — run. Fortunately, most persons infected with tuberculosis want treatment and have no desire to infect others. When clinicians and health officials work with patients and have their trust, most will cooperate. By ensuring that coercion is used only when less restrictive alternatives will not work and with due regard for the rights of those detained, the law can foster public trust, minimizing the need for compulsion and laying the groundwork for the comprehensive and costly control programs needed to prevent the spread of XDR tuberculosis and other contagious pathogens.

**An interview with Professor Parmet can be heard at [www.nejm.org](http://www.nejm.org).**

Ms. Parmet is a professor of law at Northeastern University School of Law, Boston.

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