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THE WHITE PLAGUE RETURNS:
LAW AND THE NEW TUBERCULOSIS

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Abstract: Tuberculosis (TB) rates in the United States have increased dramatically over the past decade. The most disturbing aspect of the disease's resurgence is the rising prevalence of multidrug-resistant tuberculosis (MDR-TB), which is frequently fatal and is far more difficult to treat than conventional TB. To combat the spread of the disease, state legislatures throughout the country are rewriting outdated tuberculosis control laws. Many public health officials have suggested that in order to control MDR-TB effectively, modern TB statutes must grant the state the ability to detain even non-infectious patients who may develop MDR-TB in the future. This Comment examines the science and treatment of the new tuberculosis and argues that the detention of non-infectious TB patients will satisfy substantive due process concerns only if such detention is based upon overt acts of past dangerous behavior and if the state has attempted to employ less restrictive alternatives to treat the patient prior to detention.

During the 1980s, following more than 30 years of continuous decline, the "white plague" of tuberculosis that claimed so many lives throughout the nineteenth and twentieth centuries returned to the United States with a vengeance. The disease's dramatic resurgence was brought to the nation's attention in October 1992, when the New York Times published a front-page, five-part series entitled "Tuberculosis: A Killer Returns." The series reported the ominous news that "[t]he United States has stumbled into its first preventable epidemic, a wave of tuberculosis with strains so virulent they threaten to return pockets of American society to a time when antibiotics were unknown."1

The most dangerous aspect of the resurgence has been the rising prevalence of multidrug-resistant tuberculosis.2 Like conventional TB strains, MDR-TB is infectious through casual contact. However, it is also resistant to the drugs that cure conventional strains with nearly 100% effectiveness, and is therefore extremely difficult to treat and frequently fatal. Tuberculosis strains resistant to antibiotics have been detected in at least 17 states, and mini-epidemics of MDR-TB have

broken out in California, Florida, Massachusetts, Michigan, New York, Pennsylvania, and Texas.³

The prospect of an outbreak of a fatal disease transmissible through casual contact is eerily reminiscent of the public health battles fought and thought to have been won during the earlier half of this century. The public health community has recognized the TB resurgence and the growing prevalence of MDR-TB as an urgent public health problem requiring rapid intervention.² As one commentator has noted: "[I]f we lose public health control of multiple drug-resistant tuberculosis . . . we will experience a health crisis equal to or greater than that posed by AIDS."⁵

Federal health officials have been scrambling to develop an effective public health strategy for dealing with the unexpected outbreak.⁶ Much of this effort has focused on the use of state and local public health laws to control the spread of the disease and to prevent the development of MDR-TB.⁷ As a result, many public health officials find themselves reexamining TB control laws that, while still on the books, have not been enforced for decades.⁸ Most of these laws predate the due process revolution of the 1970s and are therefore seriously antiquated.⁹ It is not

⁸. The use of quarantine measures and other forms of coercion to isolate infectious patients and compel treatment has drawn particular attention. See, e.g., ACET, supra note 7. This focus on the management and control of the "recalcitrant" patient through legal means is occurring despite the fact that many commentators feel that the true engine driving the reemergent epidemic has been the dramatic deterioration of living conditions that occurred in the United States during the 1980s. Improving the underlying social and public health conditions that give rise to the disease is obviously a more complex, politically demanding problem than the treatment of TB. The history of TB indicates, however, that long-term success in controlling the disease depends far more on the general standard of living in an area than on legal attempts to limit its spread. George J. Annas, Control of Tuberculosis—The Law and the Public's Health, 328 New Eng. J. Med. 585, 588 (1993). See also Gostin, supra note 7, at 255, 260.
⁹. Gostin, supra note 7, at 255.
at all clear, therefore, that these statutes can withstand modern constitutional challenge. In addition, none of these laws address the new threats posed to the public health by MDR-TB.

To remedy these problems, state legislators and health officials throughout the country have begun work on legislative initiatives to reform outdated TB control laws. Their efforts have been complicated by the fact that in order to effectively control MDR-TB, states must have the legal ability to detain even non-infectious patients who pose no direct threat to the public, but instead are at risk of developing MDR-TB in the future. Given the U.S. Supreme Court’s recognition of substantive due process rights against unjustified detention, it is unclear whether a state may detain non-infectious TB patients. This Comment describes the changed medical risks associated with the new TB and analyzes the substantive due process restraints that state legislatures face in their efforts to control MDR-TB in this manner.  

I. TUBERCULOSIS: PAST AND PRESENT

Analysis of the legal problems raised by the new TB requires an understanding of the disease’s history, underlying science and treatment, and the dangers associated with the rise of MDR-TB.

A. History

That tuberculosis is making a resurgence in the late twentieth century is not surprising, considering its historical longevity. Evidence of TB has been found in six-thousand-year-old human remains discovered near Heidelberg, Germany, as well as in the mummified bodies of Egyptian priests dating back to 1000 B.C. During the nineteenth century, TB was unquestionably the greatest single cause of death in the Western world, and its prevalence can be clearly seen in the artistic developments of the Romantic era. Much of the melancholia of the age,

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10. State legislatures also face the challenge of writing tuberculosis control statutes that comply with constitutional procedural due process requirements. This Comment does not address the question of what particular procedural safeguards are necessary prior to the detention of non-infectious TB patients, but instead focuses on the threshold substantive issue of whether such detention is justifiable at all.
12. Id. at 10.
its fixation on the themes of the ephemera of youth and the transience of existence, can be partially attributed to the devastating impact the disease had on so many of the era's most promising young artists.¹³

By 1882, the year in which TB was recognized to be a communicable disease caused by a bacterium,¹⁴ the Romantic, poetical view of consumption had yielded to a more realistic assessment of the suffering and misery it created.¹⁵ Tuberculosis was rampant in the squalid tenements and slums of the new cities of the Industrial Revolution, and the disease came to represent everything that was rotten in this new world.¹⁶

B. Science

Tuberculosis is a bacterial infection caused by *Mycobacterium tuberculosis,* often called the tubercle bacillus.¹⁷ In most cases, a person becomes infected by inhaling airborne droplets coughed up by a person with untreated, active TB of the lungs or larynx.¹⁸ TB is not considered to be as infectious as other respiratory diseases, such as the common cold or measles,¹⁹ as TB infection generally requires close, extended contact with an infectious source.²⁰ The individuals most at risk of becoming infected, therefore, are the patient's family, close friends, and fellow workers who share air with the patient on a daily basis.²¹ Infection is also likely in poorly ventilated institutional settings, such as prisons, hospitals, and homeless shelters.²²

¹³. *Id.* at 46. The early deaths of artists such as John Keats, Frederic Chopin, and Percy Bysshe Shelley shrouded the disease in a romantic aura of mystery and tragedy during the 19th century. Like Puccini's heroine in *La Bohème,* and Verdi's in *La Traviata,* Keats and Shelley came to represent the Romantic archetype of the young, suffering consumptive—sensitive, artistic, and doomed to die in the bloom of youth.

¹⁴. *Id.* at 101.

¹⁵. *Id.* at 65.

¹⁶. *Id.* at 66.


¹⁹. *Id.*

²⁰. *Id.*


When a healthy person inhales tubercle bacilli, the bacteria are usually killed immediately by the body’s immunological system, in which case no infection occurs. In other cases, however, the bacteria may travel throughout the body and lodge in areas particularly susceptible to TB infection, such as the lungs, kidneys, or lymph nodes. Within two to ten weeks, the body’s immunological system usually walls the bacteria into a small lump called a tubercle, which prevents the bacteria from multiplying and spreading further. Although these individuals are infected with TB, they will most likely never develop an active case of the disease. In the United States, about 90% of those infected with TB never develop symptoms of the active disease.

As long as their infection remains dormant, these individuals are perfectly healthy and cannot infect others. Whenever their immunological defenses are lowered, however, whether through emotional, physical, or nutritional stress, they are at risk of developing active TB. When this occurs, the bacteria breaks out of the body’s containment and multiplies, destroying the patient’s lung tissue. The patient develops a constant, prolonged cough, becomes feverish, and may suffer other symptoms including shortness of breath, chills, night sweats, and loss of appetite. At this point, the TB bacteria in the patient’s lungs are being expelled with every cough, and the infected person represents a threat to the community.

C. Treatment

1. Before Antibiotics

As scientific understanding of TB began to develop around the turn of the century, a new method of treating the disease began to gain popularity. The great sanitorium movement developed in Germany during the late nineteenth century, and was based upon the idea that TB sufferers could be cured by isolating them from the stresses of urban

23. Richards & Rathbun, supra note 18, at 12.
24. CDC, supra note 17, at 3.
25. Id.
26. Id.
27. Id.
29. Id. at 12.
30. CDC, supra note 21, at 21.
31. Richards & Rathbun, supra note 18, at 12.
Surrounded by fresh, open air and given the opportunity to rest quietly for months at a time, patients in sanitoria were thought to have vastly increased chances of survival. Sanitoria sprang up in Germany and Switzerland and in 1882, Edward Livingston Trudeau established the first American sanitorium on Saranac Lake in the Adirondack Mountains of New York State.

Although the sanitorium movement probably did little to cure patients with serious TB cases, the institutions did play a dramatically effective role in controlling the spread of the disease to the general public. The isolation of infectious cases in sanitoria during the early twentieth century contributed to a significant reduction in TB mortality throughout the Western world. In the absence of an actual cure, however, the sanitorium movement could do relatively little to treat those who contracted the disease. When left untreated, about 40–60% of those afflicted with active TB will die. Given this mortality rate, it is not surprising that nearly 90,000 people a year still died from TB in the United States as late as 1930.


It would be difficult to overstate the impact that the development of effective drug treatment for TB during the 1950s had on public health throughout the United States. With the development of streptomycin in 1947 and isoniazid in 1952, the death toll from TB plummeted. From 1953 to 1984, the number of reported TB cases in the United States declined at a rate of approximately 5% per year—from more than 84,000 cases in 1953 to nearly 22,000 cases in 1984.
Modern TB treatment centers on the administration of a six to nine month regimen of multiple drugs. The cure rate for conventional TB patients who complete their prescribed treatment is greater than 90%. As recently as 1987, U.S. health officials, encouraged by the continuing effective use of multiple drug therapy, looked forward to the eventual elimination of TB from the entire nation. During that year, the Department of Health and Human Services created the Advisory Council for the Elimination of Tuberculosis, which established for itself the goal of eliminating the disease (i.e. achieving a case rate of less than one case per million population) in the United States by the year 2010. Ultimate victory in the long campaign against the “white plague” of the nineteenth century appeared to be close at hand.

D. The New Tuberculosis

Even as health officials were convening to discuss the plan to eliminate TB from the United States, however, it was becoming ominously clear that the disease would not be so easily conquered. The steady decline of TB cases in the United States that had continued for more than 30 years abruptly changed course in the mid-1980s. From 1985 to 1992, reported TB cases increased by 20%, and there were 51,000 more cases than would have been expected had the downward trend continued. The resurgence of TB during the past decade was not unavoidable. In fact, some commentators have gone so far as to say that the return of the disease is merely the predictable outcome of American health care and social policy over the past ten years. They argue that the reduction of social welfare programs during the Reagan-Bush era that led to increased levels of poverty, homelessness, and degraded living conditions, particularly in the inner cities, has played a significant role in creating

43. CDC, supra note 21, at 25.
44. Richards & Rathbun, supra note 18, at 13.
45. Id.
47. Id.
48. ACET, supra note 7, at 1.
49. Id.
50. Gostin, supra note 7, at 255.
populations in which active tuberculosis is likely to develop. Substantial population growth in institutional settings, such as prisons and homeless shelters, has also led to the rise in TB cases.

The TB resurgence has also been fueled by the high infection rate among persons already infected with the human immunodeficiency virus (HIV), the virus that causes acquired immunodeficiency syndrome (AIDS). HIV-infected individuals have impaired bodily defenses, and are therefore at high risk of developing active TB and spreading it to others. In fact, HIV infection is one of the strongest known risk factors for the progression of TB from infection to disease. Persons coinfected with HIV and TB have an 8% chance per year of developing active TB, compared to the usual 5-10% per lifetime rate for non-HIV-infected persons. This represents a 30-40 fold increase in the risk of disease for HIV-positive individuals.

The most disturbing aspect of the TB resurgence is the rising prevalence of multidrug-resistant strains of the disease, which are only marginally treatable and frequently fatal. A 1991 study showed that 14.4% of cases nationwide involved resistance to at least one drug, and 3.3% were resistant to both isoniazid and rifampin, the two most effective antituberculosis drugs. In the mid-1980s, only 0.5% of TB cases were resistant to both drugs. The MDR-TB problem is even worse in America’s cities. A 1992 survey in New York City found that

51. Id.
52. Id.; Dixie E. Snider, Jr. & Mary D. Hutton, Tuberculosis in Correctional Institutions, 261 JAMA 436 (1989); Andrew Skolnick, Government Issues Guidelines to Stem Rising Tuberculosis Rates in Prisons, 262 JAMA 3249 (1989). At least one commentator has suggested that the tuberculosis epidemic has been fueled by the war on drugs, which has focused on the mass incarceration of drug offenders in already crowded prison facilities, instead of drug treatment. Andrew A. Skolnick, Some Experts Suggest the Nation’s ‘War on Drugs’ Is Helping Tuberculosis Stage a Deadly Comeback, 268 JAMA 3177 (1992).
54. Richards & Rathbun, supra note 18, at 12.
55. Id.
56. CDC, supra note 17, at 1.
57. Id. at 3.
61. Id.
33% of the TB cases there involved bacteria resistant to at least one drug, and 19% had organisms resistant to both isoniazid and rifampin.\textsuperscript{62}

MDR-TB is much more difficult and more expensive to treat than conventional TB.\textsuperscript{63} The cure rate drops alarmingly from nearly 100% to 60% or less, and even in successful cases, the course of treatment increases from six months to 18–24 months.\textsuperscript{64} MDR-TB is particularly devastating to HIV-positive individuals, causing death in more than 80% of all cases,\textsuperscript{65} with a median of four to sixteen weeks from diagnosis to death.\textsuperscript{66}

Severe outbreaks of MDR-TB frequently occur in institutional settings, such as hospitals and correctional facilities. In seven outbreaks investigated by the Centers for Disease Control from 1990–1992 in institutional environments in the United States, more than 200 MDR-TB cases were observed.\textsuperscript{67} Nearly all these cases involved bacteria resistant to both isoniazid and rifampin, and some had organisms resistant to seven antituberculosis drugs.\textsuperscript{68} Mortality among these patients was extremely high, ranging from 72 to 89 percent.\textsuperscript{69} Transmission did not just occur from patient to patient or from prisoner to prisoner. At least nine health care workers and prison guards were infected with MDR-TB, and five died from the disease.\textsuperscript{70}

The mechanism fueling the development of MDR-TB is a simple one: the failure of patients to complete their treatment regimen.\textsuperscript{71} Drug resistance to TB occurs when patients being treated for TB take only enough medication to weaken, but not kill, the bacteria that are drug-sensitive.\textsuperscript{72} When this occurs, the normally dormant drug-resistant strains that naturally occur in all patients are given a competitive
advantage, and soon the drug-resistant bacteria replace the strains that had previously responded to treatment.\textsuperscript{73} If a patient that has developed MDR-TB in this manner becomes infectious again, as often occurs when treatment is not completed, this patient is likely to infect others with TB that is already resistant to multiple drugs.\textsuperscript{74} The control of MDR-TB, therefore, depends most critically upon assuring that patients comply with the full extent of their treatment regimen.\textsuperscript{75}

The central irony of the recent outbreak of MDR-TB is that it has occurred largely as the result of the remarkable success of drug treatment in curing tuberculosis during the 1950s and 1960s.\textsuperscript{76} Shortly after the development of effective multidrug treatment, drug resistance was uncommon because patients were treated in hospitals, where compliance could be assured.\textsuperscript{77} In the late 1960s, however, the proven success of drug therapy in reducing a TB patient’s infectious period to just a few weeks led to the closing of TB hospitals and sanitoria throughout the United States.\textsuperscript{78} Therapy was shifted to the outpatient setting,\textsuperscript{79} and the burden of TB care fell on clinics and community care.\textsuperscript{80} The unfortunate result of this shift to outpatient care was reduced patient compliance and an explosion of drug-resistant strains of TB during the 1980s.\textsuperscript{81}

The problem with achieving full compliance with treatment on an outpatient basis is that the patient generally starts to feel better in a few weeks but is expected to continue taking the medication for six to eighteen months.\textsuperscript{82} As anyone who has taken antibiotics knows, there is a strong temptation to stop taking one’s medication as soon as one’s health improves. In addition, a host of larger social issues may make compliance more difficult for particular populations. Patients who are homeless, or whose living arrangements are characterized by chronic emotional instability, are unlikely to be compliant for the extended period required for TB treatment.\textsuperscript{83} Individuals addicted to drugs or

\textsuperscript{73} Id. at 13–14.
\textsuperscript{74} Id. at 14.
\textsuperscript{75} Id. at 13.
\textsuperscript{76} Iseman, supra note 59, at 784. See also Ryan, supra note 3, at 390–92.
\textsuperscript{77} Iseman, supra note 59, at 784.
\textsuperscript{78} Id.; Ryan, supra note 3, at 390.
\textsuperscript{79} Iseman, supra note 59, at 784.
\textsuperscript{80} Ryan, supra note 3, at 390.
\textsuperscript{81} Id.; Iseman, supra note 59, at 784.
\textsuperscript{82} Richards & Rathbun, supra note 18, at 13.
\textsuperscript{83} Bayer et al., supra note 58, at 652.
alcohol may also find it difficult to follow an extended treatment plan.\textsuperscript{84} Nor are patients under a concomitant obligation to take multiple drugs for AIDS or other illnesses likely to give priority to their TB treatment.\textsuperscript{85}

II. THE QUARANTINE ERA: TUBERCULOSIS AND THE STATES’ POLICE POWER

During the nineteenth and early twentieth centuries, the ability of the states to isolate and detain individuals infected with or exposed to contagious diseases was never seriously questioned. Quarantine statutes were routinely upheld as constitutional under the states’ police power, the sovereign power to protect public health and safety.\textsuperscript{86} In fact, during an era in which outbreaks of smallpox, yellow fever, typhus, and TB were common, the use of quarantine and other public health measures were widely seen as the definitive, archetypal use of the police power.\textsuperscript{87}

In Jacobson v. Massachusetts,\textsuperscript{88} for example, the Supreme Court rejected a constitutional challenge to Massachusetts’ authority to permit local communities to require smallpox vaccinations. The Court distinctly recognized the authority of a state to enact quarantine laws and “health laws of every description” under the police power.\textsuperscript{89} The Court pointed out the breadth of the state’s ability to regulate matters of public health under the police power, indicating that the principles of self-defense and paramount necessity gave the community the right to protect itself against an epidemic of disease that threatens the safety of its members.\textsuperscript{90} The decision was based on the premise that the rights of the individual may “under the pressure of great dangers” be forced to yield to public safety concerns.\textsuperscript{91} Other early decisions upholding public health statutes issued pursuant to the police power echoed this rationale.\textsuperscript{92}

\begin{footnotes}
\footnote{84. Id.}
\footnote{85. Ryan, supra note 3, at 407.}
\footnote{86. See, e.g., Jacobson v. Massachusetts, 197 U.S. 11 (1905); People ex rel. Barmore v. Robertson, 134 N.E. 815 (Ill. 1922); Crayton v. Lanbee, 116 N.E. 355 (N.Y. 1917).}
\footnote{87. Wendy E. Parmet, AIDS and Quarantine: The Revival of an Archaic Doctrine, 14 Hofstra L. Rev. 53, 60 (1985).}
\footnote{88. 197 U.S. 11 (1905).}
\footnote{89. Id. at 25.}
\footnote{90. Id. at 27.}
\footnote{91. Id. at 29.}
\footnote{92. Staples v. Plymouth Co., 17 N.W. 569, 570 (Iowa 1883) ("[Quarantine] is demanded by humanity . . . [for] arresting the spread of contagions."); Haverty v. Bass, 66 Me. 71, 73–74 (1876) ("[T]he individual right sinks in the necessity to provide for the public good.").}
\end{footnotes}
Given this expansive view of the breadth of the police power, it is not surprising that a state’s substantive ability to quarantine infectious individuals to protect the public health was never seriously questioned. A legislature’s delegation of authority to health officials to preserve the public health was absolute, and courts were extremely reluctant to review a health officer’s judgment that an infected individual needed to be quarantined to protect the public.93

After World War II, however, scientific and medical advances gradually began to diminish the fear of contagious diseases that had so gripped the public during earlier years, and legal measures to isolate contagious individuals from the rest of the public became largely obsolete. Cures were developed for acute, highly contagious diseases, such as cholera and typhoid fever, by the early part of the century,94 and by the 1950s, effective antituberculosis drugs had been discovered.95 Amid widespread belief that modern science had solved the problems of contagious diseases forever, quarantine laws quietly disappeared from widespread use, seemingly the remnants of an age eagerly forgotten.

III. THE NEW TUBERCULOSIS AND SUBSTANTIVE DUE PROCESS

As a result of the resurgence of tuberculosis during the past decade, however, public health officials have focused renewed attention on the use of TB statutes to control the spread of the disease. Although the traditional use of these statutes to isolate infectious patients continues to be important, the critical new role to be played by TB statutes today is to prevent the further development and spread of MDR-TB. Because of the connection between lack of compliance with a prescribed drug regimen and the development of MDR-TB,96 many public health officials argue that meaningful TB control laws must include the ability to confine non-infectious patients to ensure that they complete their full course of treatment.97 Whether or not the state has the substantive ability to require

95. Tynes, supra note 40, at 2617.
96. See supra text accompanying notes 71–75.
97. See, e.g., ACET, supra note 7, at 8–9; Annas, supra note 8, at 587; Bayer et al., supra note 58, at 653.

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the involuntary commitment of individuals who are not infectious, display no signs of active disease, and pose no direct threat to the public health other than that they may develop MDR-TB at some point in the future, is a legal question that no court has yet addressed.

A. The Due Process Revolution

Public health officials seeking to use TB control statutes to detain patients today are likely to find that their actions are subject to much closer scrutiny than their turn of the century counterparts. During the 1970s, the due process clauses of the fifth and fourteenth amendments to the Constitution came to be interpreted as placing substantive limits on state legislation that deprives individuals of fundamental rights. The era of complete judicial deference to the use of the police power to protect public health and safety ended and was replaced by a new willingness to closely scrutinize legislation whenever fundamental liberty rights are involved.

Because few quarantine cases postdate this due process revolution, it is difficult to predict whether the courts are likely to place substantive restraints on a state’s use of quarantine laws to control TB. Recent Supreme Court decisions on the constitutionality of civil commitment laws for the mentally ill, however, indicate that the liberty interest at stake in any form of involuntary confinement, including detention for the purpose of preventing the development of MDR-TB, requires due process protection.

The Supreme Court has repeatedly recognized that civil commitment for any purpose constitutes a massive curtailment of liberty. This liberty right, the Court has held, is important and fundamental. Involuntary confinement also deprives individuals of other rights the Supreme Court has recognized as fundamental, including the rights to

100. *Id.* at 78.
privacy, to cohabit with one’s spouse and family, and to travel. When fundamental rights such as these are involved, state regulations limiting these rights are constitutional only if they are able to withstand strict scrutiny from the judiciary. Under strict scrutiny analysis, state regulation is constitutional only if it 1) advances a compelling state interest and 2) is narrowly drawn to further that interest.

B. The Question of Dangerousness: The Prevention of MDR-TB As a Compelling State Interest

The Supreme Court has indicated in its civil commitment decisions that the only constitutional basis for involuntary commitment is dangerousness. In the absence of a showing that an individual’s condition endangers himself or his community, the presence of mental or physical disorders are insufficient to justify confinement of those capable of surviving safely in freedom. A wholly sane and innocent person has a constitutional right not to be physically confined by the State when his freedom will pose a danger neither to himself nor to others.

This substantive limitation on the state’s ability to place individuals under civil commitment does not affect its ability to use TB control laws to protect the public health from infectious individuals. Patients with active, infectious TB directly endanger those who come in contact with them, and the cases affirming the government’s ability under the police power to enact statutes to protect the public on this basis are legion. However, the use of TB control laws to isolate non-infectious TB patients calls into question the traditional definition of dangerousness used to justify involuntary detention. While the infectious TB patient poses an immediate, direct threat to the public, the dangerousness of a non-infectious patient who fails to take all of his prescribed medication is

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107. Shapiro v. Thompson, 394 U.S. 618 (1969), overruled in part or other grounds by Edelman v. Jordan, 415 U.S. 651 (1974). The liberty interests at stake are likely to be particularly significant in the case of a tuberculosis patient suffering from AIDS. Such a patient may be faced with the real possibility of spending his last few months of life in involuntary confinement.
110. Id. at 575.
111. Id. at 573 n.8. The Court in O’Connor explicitly refused to address the question of whether the provision of medical treatment, standing alone, can ever constitutionally justify involuntary confinement. Id. at 574 n.10.
112. See supra notes 86–92 and accompanying text.
far less certain. The non-infectious, non-compliant TB patient poses no immediate threat to others, but may become a danger in the future if his failure to complete his medication causes him to develop MDR-TB and he later becomes reinfectious. It is uncertain that this risk of possible future infectiousness can meet the clear and convincing evidentiary standard of dangerousness the Court requires to justify involuntary confinement.

I. Arline: A Baseline for Considering the Dangerousness of the New Tuberculosis

Although the Supreme Court has never explicitly described the risk analysis that should govern the involuntary commitment of contagious individuals with TB, it recently addressed this question in the context of employment discrimination. In *School Board of Nassau County v. Arline*, the Court considered the degree of danger that a schoolteacher with TB posed to her students in order to determine whether she could be justifiably fired from her job on this basis. The Court began its analysis by first recognizing that few bodily handicaps give rise to the same level of fear and misapprehension as contagiousness. In holding that more than just the fear of danger is required to exclude a person with TB from the workplace, the Court stated that individualized determinations of dangerousness are required to avert “discrimination on the basis of mythology” and to ensure reasoned and medically sound judgments.

The Court went on to hold that the dangerousness of a schoolteacher with TB to her students should be assessed in light of the following factors: 1) the nature of the risk (how the disease is transmitted); 2) the duration of the risk (how long the carrier is infectious); 3) the severity of the risk (the potential harm to others); and 4) the probabilities that the disease will be transmitted and will cause varying degrees of harm. In

113. Annas, supra note 8, at 587.
116. Id. at 284.
117. Id. at 284–87. This holding is consistent with the Court’s prior decisions establishing that in the absence of an actual danger, external fear or prejudice cannot justify civil commitment. See O’Connor v. Donaldson, 422 U.S. 563, 575 (1975) (“Mere public intolerance or animosity cannot constitutionally justify the deprivation of a person’s physical liberty.”).
118. Arline, 480 U.S. at 288.
making these findings, courts should defer to the reasonable medical judgments of public health officials. 119

The factors described in Arline were aimed at determining the immediate infectious threat a teacher with TB posed to her students. The deprivation of one’s employment, while important, does not implicate the liberty interest involved in involuntary confinement. It is therefore likely that the courts would require an even more definite showing of dangerousness in civil commitment proceedings to justify such a serious deprivation of liberty. A failure by the state to prove the danger posed by such an individual prior to involuntary detention would constitute a violation of the patient’s substantive due process rights.

Furthermore, transmission of MDR-TB requires the consideration of several factors not present in the Arline decision. The danger that a TB patient may develop MDR-TB is directly related to his ability and willingness to comply with an extended course of treatment. 120 The likelihood that a patient will fail to comply with treatment, therefore, must be considered to determine whether the detention of the individual constitutes a compelling state interest.

In addition, the danger that a non-infectious, non-compliant individual poses to the public depends upon the likelihood that the patient’s failure to comply will in fact cause him to develop MDR-TB and to become infectious in the future. This probability is an extremely complicated issue and is currently the subject of ongoing medical controversy. The most significant factor identified, however, that indicates such a tendency is the patient’s failure to comply in the past. 121 The more times a patient goes through a cycle of active infection followed by treatment that is not completed, the more likely he is to develop MDR-TB. 122

2. Determining the Likelihood of Compliance

The potential future dangerousness of a non-infectious TB patient is therefore directly linked to that patient’s likelihood of compliance with treatment. Certain segments of the population—the homeless, the drug-and-alcohol-addicted, the HIV-positive, the urban poor—face particular difficulties in this regard. 123 As a result, legislatures and courts may seek

119. Id.
120. See supra text accompanying notes 71–75.
121. Iseman, supra note 59, at 784.
122. Id.
123. See supra text accompanying notes 82–85.
to simplify complex individualized determinations of dangerousness by using these broad social classifications to create a presumption that all homeless or HIV-positive TB patients, for example, are likely to fail to comply with treatment and are therefore dangerous. Public health officials are likely to encourage such generalized determinations as an effective means of ensuring that MDR-TB does not develop in particularly susceptible populations. Given the traditional deference shown by the judiciary to the judgments of medical experts, such an approach would allow public health officials to detain HIV-positive or homeless TB patients merely because of their status.

The danger of allowing public health officials to determine that a patient is likely to fail to comply with treatment on the basis of a generalized assessment of his economic or social status is obvious. The state’s ability to quarantine has been used on more than one occasion to harass, isolate and exclude unpopular, socially disfavored groups. During World War I, for example, as a means of protecting the public from venereal disease, quarantine laws were used to incarcerate prostitutes for periods of time longer than many criminal sentences would allow. In many cases, an individualized determination of the presence of venereal disease was not required. A reasonable basis for believing a woman was a prostitute was sufficient justification for quarantine. Perhaps the most infamous misuse of the state’s detention power was the wartime quarantine of Japanese-Americans during World War II, an event now regarded as one of the most unfortunate moments in American history.

These historical abuses illustrate the importance of substantive due process analysis today to ensure that unfair and discriminatory policies are never implemented again. As the Court pointed out in Arline, the fact that some persons who have contagious diseases may pose a serious health threat to others does not justify excluding all contagious persons from the workplace. In similar fashion, that some homeless TB patients may be unable to comply with their treatment does not justify the finding that all homeless patients will be unable to do so. The fundamental liberty interest involved in involuntary detention requires

124. See Parmet, supra note 87, at 66-71; Rights, supra note 105, at 1277.
125. Parmet, supra note 87, at 66.
126. See, e.g., Ex parte Martin, 188 P.2d 287 (Cal. App. 1948); Ex parte Dayton, 199 P. 548 (Cal. App. 1921); Ex parte Arata, 198 P. 814 (Cal. App. 1921); Ex parte Company, 139 N.E. 204 (Ohio 1922).
127. See Parmet, supra note 87, at 69.
individualized determinations of dangerousness to guard against discrimination based upon unfounded fears. In order for these determinations to have any meaning, indicators more significant than broad generalizations about the patient’s economic or social status must be used to justify detention.

3. Past Behavior as Evidence of Future Dangerousness

Instead, analysis of the likelihood that a TB patient will fail to comply with treatment must focus on specific evidence of the patient’s past history of compliance. Many state and federal courts have held that the Constitution requires that determinations of dangerousness justifying detention for mental illness be based on specific, identifiable overt acts of past dangerous behavior.129

Courts have required overt acts of past dangerous behavior because of the complexity of accurately predicting future dangerous conduct. Many judges are reluctant to curtail fundamental liberty interests on the basis of uncertain predictions of future dangerousness, and have therefore required overt acts as necessary to establish a sufficiently high probability of dangerousness to justify commitment.130 When the consequence of a health official’s decision is involuntary confinement, a mere expectation that dangerous behavior might occur does not rise to the level of legal significance.131 Because courts should not order commitment unless convinced that the probability of dangerous acts is substantial,132 they must rely on overt acts of past behavior indicating future dangerousness to ensure that detention is justified.

Although a few courts have rejected the notion that a showing of overt acts of past dangerousness is constitutionally required to justify civil

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130. See Groethe, supra note 130, at 570.


commitment of the mentally ill, the Supreme Court has never addressed the issue. Many states have nevertheless adopted statutes explicitly requiring such a showing. In Washington State's civil commitment law for the mentally ill, for example, a person may be detained only upon a showing of dangerousness against himself or others that is demonstrated through specific past behavior. The risk of physical harm that the individual poses to himself must be "evidenced by threats or attempts to commit suicide or inflict physical harm on one's self." Similarly, the threat to others must be "evidenced by behavior which has caused such harm or which places another person or persons in reasonable fear of sustaining such harm." The Washington courts consider overt acts or behavior to be required as a matter of due process.

By applying this same requirement to the confinement of non-infectious TB patients, state legislatures will ensure that the individuals detained are in fact at risk of developing MDR-TB and passing it on to others. The overt acts requirement would focus attention on objective indicators of a patient's ability to comply with treatment, and confinement decisions would be less susceptible to the prejudices and private biases of public health officials. A statute requiring evidence of overt past behavior would also take into account the medical fact that patients who have failed to comply with treatment in the past pose a greater danger to the public health because of their increased chances of actually developing MDR-TB.

Individuals detained under such a statute will have shown themselves to be a threat to the public health through their own unwillingness or inability to comply with treatment in the past, and will not have been detained merely because of their homelessness or HIV positive status.

134. See Groethe, supra note 130, at 563.
135. Id. at 562.
138. Id.
140. See supra text accompanying notes 122–23.
141. New York City has recently amended its tuberculosis control laws, and has conditioned the detention of non-infectious, non-compliant patients on the substantial likelihood that the patient cannot be relied upon to complete his treatment based upon his "past or present behavior." Such behavior may include the refusal or failure to take medication, to keep appointments for treatment, or
A clear showing of the patient’s dangerousness will have been demonstrated, and the state’s compelling interest in preventing the spread of MDR-TB will justify the restriction of the patient’s liberty.

C. Less Restrictive Alternatives

As a matter of substantive due process, laws that authorize public health officials to detain non-infectious, non-compliant TB patients must also be narrowly drawn. In considering whether or not a statute has been drawn narrowly enough to withstand strict scrutiny, courts look to see whether the state could have achieved its goal using less restrictive alternatives.\textsuperscript{142} If so, the regulation is clearly not narrowly tailored to standards of necessity, and the courts are much more likely to find a substantive due process violation than if all such alternatives are exhausted.\textsuperscript{143}

Although the Supreme Court has never held that less restrictive alternatives analysis is required as a matter of substantive due process for all civil commitment proceedings, it has expressed concern that the least restrictive means be used to treat the mentally ill. In \textit{O'Connor v. Donaldson},\textsuperscript{144} the Court cited \textit{Shelton v. Tucker}\textsuperscript{145} and held that “incarceration is rarely if ever a necessary condition for raising the living standards of those capable of surviving safely in freedom, on their own or with the help of family or friends.”\textsuperscript{146}

In \textit{Shelton},\textsuperscript{147} the Court struck down an Arkansas statute that required public school teachers to list every organization to which they had belonged within the preceding five years. The Court first noted that under the statute, affiliation with an unpopular group could lead to a teacher’s summary dismissal or other disciplinary action without cause, and therefore held that the statute infringed upon the teachers’ fundamental associational rights.\textsuperscript{148} Because the state could have satisfied its interest in assuring the quality of its teachers through a far

\textsuperscript{142} Parmet, \textit{supra} note 87, at 86.
\textsuperscript{143} Id.
\textsuperscript{144} 422 U.S. 563 (1975).
\textsuperscript{145} 364 U.S. 479 (1960).
\textsuperscript{146} \textit{O'Connor}, 422 U.S. at 575.
\textsuperscript{147} 364 U.S. 479 (1960).
\textsuperscript{148} Id. at 486-87.
less intrusive inquiry into only those associations relevant to teacher fitness, the Court held that the statute was unconstitutional.\textsuperscript{149}

The logic of the least restrictive alternatives principle was specifically applied to civil commitment by the D.C. Circuit Court of Appeals in \textit{Covington v. Harris}.\textsuperscript{150} The petitioner in \textit{Covington} sought habeas corpus relief from his confinement in the maximum security ward of a public mental hospital.\textsuperscript{151} In remanding his case back to the district court, the court specifically held that “the principle of the least restrictive alternative consistent with the legitimate purposes of a commitment inheres in the very nature of civil commitment.”\textsuperscript{152} Before a hospital can constitutionally decide to confine a patient in a maximum security ward, the court held, it must have considered and found inadequate all relevant alternative dispositions within the hospital.\textsuperscript{153} Moreover, the court placed the burden of ascertaining what alternatives are available on the state.\textsuperscript{154}

The widespread availability of alternative methods for ensuring compliance with TB treatment makes the extension of \textit{Covington} to the TB setting particularly appropriate. Applying \textit{Covington}'s less restrictive alternatives analysis to TB statutes would ensure that public health officials develop an individualized plan of treatment for each patient,\textsuperscript{155} and would require them to consider other less intrusive (and less costly) measures prior to ordering detention. Only after all these alternatives have been exhausted would commitment be permitted.

The most frequently discussed alternative to confinement to ensure compliance is directly observed therapy (DOT).\textsuperscript{156} Under DOT, a health care professional watches the patient take his medication throughout the six or nine months of treatment that are prescribed.\textsuperscript{157} DOT can occur in a convenient place such as an outpatient clinic, or outreach workers can travel to patients’ homes.\textsuperscript{158}

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\textsuperscript{149}. \textit{Id.} at 488–90. \\
\textsuperscript{150}. 419 F.2d 617 (D.C. Cir. 1969). \\
\textsuperscript{151}. \textit{Id.} at 619. \\
\textsuperscript{152}. \textit{Id.} at 623. \\
\textsuperscript{153}. \textit{Id.} at 624. \\
\textsuperscript{154}. \textit{Id.} at 624–25 (citing Lake v. Cameron, 364 F.2d 657 (D.C. Cir. 1966)). \\
\textsuperscript{155}. Gostin, supra note 7, at 258. \\
\textsuperscript{156}. Michael D. Iseman et al., \textit{Directly Observed Treatment of Tuberculosis: We Can't Afford Not to Try It}, 328 New Eng. J. Med. 576 (1993). \\
\textsuperscript{157}. \textit{Id.} at 576. \\
\textsuperscript{158}. Richards & Rathbun, supra note 18, at 15.
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In addition to DOT, states should provide other social services and treatment alternatives prior to detention. Numerous public health commentators have proposed a creative array of incentives, counseling, and support structures to encourage voluntary completion of treatment. Such a range of incentive programs could include expedited drug and alcohol treatment, transportation expenses to and from DOT clinics, child care, hot meals, and perhaps even modest cash payments for completed treatment.\footnote{159} If a patient still fails to comply, compulsory DOT requiring the patient to show up at a clinic at a certain time every day may be required. Once compulsory DOT proves to be ineffective, detention would be allowed.

In addition to being extremely important from a constitutional perspective, statutes that require the state to exhaust all available less restrictive alternatives prior to permitting involuntary detention also encourage the state to address the public health threat of tuberculosis in the most cost-effective manner. The cost of detention far exceeds the cost of providing incentives to patients who might otherwise fail to comply.\footnote{160}

IV. EPILOGUE

The involuntary commitment of patients at risk of developing MDR-TB and transmitting it to others is an important element of an overall comprehensive plan to combat the rise of the disease. However, legal attempts to control TB are extremely expensive, and do little to address the underlying causes of TB's resurgence. Marshalling the political will to improve the degraded living conditions of the inner cities and to address the problem of overcrowded prisons and homeless shelters that have fueled TB's return in the United States will be far more difficult than the legislative effort to reform a few antiquated laws. In the end, however, such efforts will be far more effective and far less expensive than a focus on the detention of recalcitrant patients. In today's medical climate, a dime's worth of prevention is far more valuable than a dollar's worth of cure.

\footnote{159. Gostin, \textit{supra} note 7, at 258; Bayer et al., \textit{supra} note 58, at 652.} \footnote{160. Bayer et al., \textit{supra} note 58, at 652.}