Mailman School of Public Health
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The Elusive Tuberculosis Case: the CDC and Andrew Speaker Teaching Note

Case Summary

Infectious patients often cooperate voluntarily with medical advice to limit exposure to their illness and protect the general welfare. But when they do not, health professionals can find themselves facing an array of ethical and logistical challenges. This case explores those challenges through the story of Andrew Speaker, a young Atlanta lawyer diagnosed in April 2007 with active tuberculosis disease. Initially cooperative, Speaker follows doctors' orders to present himself at a county health clinic for testing and treatment, and begins taking the standard four-drug regimen used to treat ordinary TB. He also tells his doctors of his plans to travel to Greece the following month to get married.

But a few weeks before his scheduled departure, lab test results reveal that the drugs he is taking will have no effect: his tuberculosis is multidrug resistant, a more lethal and difficult-to-treat form of the disease than regular TB. At a meeting with Speaker and his family, Fulton County health officials explain that, although he is not considered highly contagious, as per WHO guidelines for MDR TB patients, they would prefer that he not travel.

Although the state officials get the impression Speaker might not comply with their advice, Georgia state law prohibits imposing travel restrictions until patients have actually proven to be uncooperative. They follow up quickly by sending Speaker an official letter restating their strong recommendation that he not travel, but discover that Speaker has apparently left the country already.

Fulton County officials immediately inform the CDC of their missing MDR TB patient, and CDC quarantine officer Dr. David Kim begins an investigation, eventually tracking Speaker down in Rome. By that time, Speaker's diagnosis has changed yet again: new lab results determine that what they had thought was Multidrug Resistant TB is the even more serious and difficult to cure Extremely Drug Resistant TB (XDR TB).

This Teaching Note was written by Ruth Palmer for the Case Consortium @ Columbia and the Mailman School of Public Health. (0613)

With no official policy in place to deal with an infectious disease patient like this one—identified in the US and presumably the CDC's responsibility, but now in a foreign country—Dr. Kim's phone conversations with Speaker are indeterminate and confused. He ultimately tells Speaker he must either pay for private transportation home himself, or check into an Italian hospital for treatment, and that a former CDC official will come to his hotel in the morning to discuss his options in-person. But when she arrives, Speaker and his fiancée are gone.

The case leaves off with CDC officials trying to decide how to handle Speaker, presumably on his way home to the US, and how to communicate about this case with the public. Should they issue a federal isolation order, or assume Speaker will now cooperate? What information should they communicate to the public in order to inform them and track down potentially infected patients, but without inciting panic? In the long term, what policy changes should be made to prevent such crises in the future? As the CDC debates its options, it gets a call that Speaker has crossed the Canadian border into the United States.

Teaching Objectives

This case examines the practical challenges health officials face when trying to balance the personal liberties of communicable disease patients with the health of the general public. It is ideal for starting discussions on health policy for controlling communicable disease in general, and tuberculosis in particular, as well as how to interact with, transport, and care for individual infectious disease patients.

Begin the discussion where the case ended by asking what the CDC should do with Speaker now: issue an isolation order, or rely on a covenant of trust? What are the pros and cons of each? For example, an isolation order would give them the legal right to forcibly restrict Speaker's movements, should he continue to refuse to cooperate.

On the other hand, it would be an historic move, with all the attendant press attention. It might also be an overreaction at this stage, given Speaker's likely still-low degree of infectiousness. But giving Speaker the benefit of the doubt at previous stages backfired. Encourage students to be specific about what they think should be the CDC's immediate action plan, including how and to where Speaker should be transported.

From there you might move on to the second immediate challenge faced by the CDC at the end of the case: identifying and controlling the public health effects of Speaker's experience. Students should discuss what practical steps the CDC should take to identify, test, and treat those who might have been infected by Speaker, as well as what the CDC's public communication strategy should be. Ask students to consider both what CDC should tell the public and how it should approach that: Should CDC hold a series of press conferences or try to keep things low key? What is the essential information it should communicate with the public in order to best promote

public health while minimizing panic? Remind students of their obligation to protect the privacy of the patient, and ask what information about Speaker himself should be made public.

After discussing what health officials should do after the case ends, you might jump back to the beginning and work through the case chronologically, asking students to consider what health officials could have done differently at each stage, given the limitations they were working with, such as incomplete information about Speaker's diagnosis, and lack of power to restrict his movements. Should they have communicated differently with Speaker when discussing his impending travel plans? How might CDC, Fulton County, and international health officials have better coordinated their efforts to track him down and limit the danger he posed to others? Once they tracked him down in Rome, how might they better have communicated with the patient, and managed his care and transport?

Ask students to consider what policy and technology changes could help avert similar crises in the future. For example, in the past quarantine and isolation policies had been oriented toward preventing infectious disease from *entering* the country, not leaving it. Should this be re-examined? Encourage students to think about potential changes not just to isolation and quarantine regulations, but also to inter- and intra- departmental coordination in health crises, as well as to control and transport of communicable disease patients within and across US borders.

Finally, one of the challenges presented in this case is how to manage communicable disease patients when slow diagnostic procedures mean health officials must make decisions and communicate with patients before they have complete information. Ask students what improvements to diagnostic procedures they would recommend to avoid future public health crises.

Class Plan

Use this case in a class on global health, tuberculosis, infectious diseases, epidemiology, or global migration and quarantine.

Pre-class. Help students prepare for class by assigning the following question:

1. How should the CDC deal with Speaker now?

Instructors may find it useful to engage students ahead of class by asking them to post brief responses (no more than 250 words) to questions in an online forum. Writing short comments challenges students to distill their thoughts and express them succinctly. The instructor can use the students' work both to craft talking points ahead of class, and to identify particular students to call upon during the discussion.

In-class questions: The homework assignment is a useful starting point for preliminary discussion, after which the instructor could pose any of the following questions to promote an 80-90 minute discussion. The choice of questions will be determined by what the instructor would like the students to learn from the class discussion. In general, choosing to discuss three or four questions in some depth is preferable to trying to cover them all.

a) What are the pros and cons of issuing a federal isolation order at the end of the case? What are the pros and cons of relying on a covenant of trust? (List on board.) Taking these into account, which alternative should the CDC choose for dealing with Speaker now?

b) How and where should Speaker now be transported and treated?

c) What steps should the CDC take to track down, diagnose and treat those potentially infected by Speaker?

d) What and how should the CDC communicate with the general public about this episode? What constitutes essential information in this case, and to what degree is the CDC obligated to protect Speaker's privacy?

e) How might Fulton County officials have better managed Speaker before he left the country, given that they were not legally permitted to restrict his travel, and they did not have complete information about his diagnosis?

f) What could Fulton County and CDC officials have done differently once they discovered that Speaker had left the country? Consider how they coordinated their efforts and communicated with other parties in the US and abroad.

g) Once the CDC found Speaker in Rome, what might they have done differently to keep Speaker from endangering others by taking a commercial flight? Should they have paid for his private transport home?

h) Consider the isolation and quarantine policies described in this case. Should they be changed in any way—for example, to give health officials the power to preemptively restrict travel even before a patient proves uncooperative?

i) In what ways could CDC procedures, and other public policies, be changed to prevent communicable disease patients from taking commercial flights?

j) Consider the diagnostic procedures described in the case for identifying TB and drug resistance. What goals for improving these would you recommend?

Suggested Readings

Centers for Disease Control and Prevention website, "Tuberculosis."

SYNOPSIS: The CDC provides a wide array of resources for instructors and students interested in expanding their knowledge of TB, whether in preparation for or follow-up to this case. Browse fact sheets and reports on TB basics, drug resistance, testing, treatment and more. For those looking for more in-depth study materials, the self-study modules and other curriculum found under "education and training" are excellent resources.

http://www.cdc.gov/tb/

Eve Conant, "His Side of the Story," *Newsweek,* May 31, 2007.

"TB Traveler Tells his Side of Story," *Larry King Live,* CNN, June 6, 2007,

SYNOPSES: For instructors and students interested in the events described in this case from the patient's point of view, these two interviews (along with others available online) provide some insight. Speaker explains that he had understood that he was not contagious when he decided to travel and that he felt terrified and abandoned by the CDC when they contacted him in Rome about his XDR TB diagnosis. The Larry King episode includes segments of the May 10 meeting that Speaker's father recorded, including Dr. Bennett saying that Speaker is not contagious.

http://www.thedailybeast.com/newsweek/2007/05/31/his-side-of-the-story.html

http://transcripts.cnn.com/TRANSCRIPTS/0706/06/lkl.01.html

Kathleen S. Swendiman and Nancy Lee Jones, "Extensively Drug-Resistant Tuberculosis (XDR TB): Emerging Public Health Threats and Quarantine and Isolation," Congressional Research Service, November 26, 2010.

SYNOPSIS: This report by two attorneys in the wake of the Speaker incident (updated in 2010) provides helpful background on isolation and quarantine, as well as descriptions of some of the legal changes (such as the implementation of a "do not board list" for infectious disease patients) that were made as a result of this case. For those interested in more in-depth study of isolation and quarantine policy, this report provides helpful bibliographical information as well.

http://www.hsdl.org/?view&did=12637

"Public Health and Border Security," United States Government Accountability Office, October 2008.

SYNOPSIS: This report requested by Congress in the aftermath of the Speaker incident summarizes the event and provides in-depth recommendations for policy changes at the CDC and Department of Homeland Security to prevent similar incidents in the future. Reading over the report's analysis of what went wrong—lack of coordination between CDC and DHS, for example—will help instructors prepare to teach the case. Those pressed for time will find the "results in brief" section an efficient primer.

http://www.gao.gov/new.items/d0958.pdf

"Tuberculosis and Air Travel: Guidelines for Prevention and Control," World Health Organization, Third Edition: 2008.

SYNOPSIS: This guide provides helpful background for how TB is potentially transmitted on airplanes, including explanations of cabin circulation and guidelines for how to minimize risk of transmission to passengers. The second edition, issued in 2006, is also available online for instructors and students curious about the guidelines in effect at the time of the Speaker case.

Third Edition (2008):

http://www.who.int/tb/publications/2008/WHO_HTM_TB_2008.399_eng.pdf

Second Edition (2006):

http://whqlibdoc.who.int/hq/2006/WHO_HTM_TB_2006.363_eng.pdf