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Specialists say TB case a sign of things to come

By John Donnelly, Globe Staff | June 4, 2007

The unexpected turns in the case of Andrew Speaker, the Atlanta lawyer with extensively drug-resistant tuberculosis, have riveted the country.

Speaker made two trans-Atlantic flights against the counsel of public health officials. A border guard let him into the United States apparently because he appeared healthy. His father-in-law works in the field of tuberculosis research. And Monday, his doctors in Denver reported that two tests of his sputum show no presence of the TB bacteria.

But TB specialists said Monday that the real importance of the case is that it is a warning to all Americans: The United States should brace itself for many more cases of the drug-resistant airborne germ in the months and years ahead.

"This is the tiniest tip of the iceberg," said Dr. Paul Farmer, a Harvard professor who has treated drug-resistant TB in Haiti, Peru, and Siberia. "We need to take excellent care of our own but also acknowledge that we're lucky as a nation: We have little TB, drug resistant or otherwise. We need to think about this much more globally."

Farmer said poor countries need laboratory diagnostic tools, more drugs, better trained doctors who could perform surgery if necessary, and a cadre of community health workers. Those workers visit patients in their homes, which ensures they are taking their drugs properly and protects them from hospital-acquired infections or illnesses.

Senior World Health Organization officials met privately Monday in Geneva to review the lessons of Speaker's case. Dr. Mario Raviglione, director of WHO's Stop TB Department, said in an interview that the TB specialists "found a number of things that failed in the system" that allowed Speaker to travel from country to country in Europe and eventually to the United States.

Speaker, who is under a federal quarantine order while being treated at a Denver hospital, flew to Greece last month for his wedding and honeymoon.

While in Europe, he learned he had an extensively drug-resistant strain TB, known as XDR-TB, and the Centers for Disease Control and Prevention told him not to fly and turn himself into a clinic. Instead, Speaker took a series of steps to avoid the no-fly order, eventually taking a plane from Prague to Canada and then driving into the United States.

Raviglione said Speaker's evasive actions exploited poor communication abilities among international health authorities, airline carriers, and border patrol posts that allowed him to travel from Rome to Prague, and then from Prague to Montreal, before crossing into the United States in a private car.

But most critically, he said, the US case revealed the lack of urgency in fighting drug-resistant tuberculosis, including the most dangerous type, XDR-TB. Since XDR-TB was identified a year

ago in South Africa, when 52 of 53 patients died from the disease, health authorities have identified cases in 37 countries, including the United States.

"TB is not just a disease of the poorest people," Raviglione said. "This is a disease that can hit everyone, even reach a lawyer in the United States. It spreads through the air and respects no border. No one should feel safe in this world."

An estimated 424,000 new cases of multiple-drug resistant TB were contracted in 2004 -- the latest available statistics -- up from roughly 273,000 in 2000. Because many patients survive for years after diagnosis, specialists estimate that as many as 2 million people around the world are infected with a form of drug-resistant TB. Of the cases in 2004, an estimated 62 percent were in China, India, and Russia.

While funding for AIDS and malaria have greatly increased in recent years -- the Bush administration last week proposed \$30 billion in additional money to fight AIDS starting in 2009 -- the amount for fighting tuberculosis has lagged well behind. Raviglione said WHO will publish a report in the coming weeks estimating that the cost of controlling XDR-TB alone will be an extra \$1 billion annually. Now, he said, the TB fight needs an additional \$1.5 billion to \$2 billion a year, including funding for XDR-TB.

Senator Edward M. Kennedy, a Massachusetts Democrat, along with two other US senators -- Sherrod Brown, an Ohio Democrat, and Kay Bailey Hutchinson, a Texas Republican -- will introduce legislation Tuesday calling for giving US public health officials the "resources needed to eliminate TB in the US," including funding for new research on anti-TB drugs and vaccines.

Mycobacterium tuberculosis, which has been found in 4,000-year-old Egyptian mummies, has been treated with antibiotics since 1944. But the TB bacteria has developed mutant strains when patients didn't use the drugs properly.

Some of those strains eventually developed multiple resistances, and much of the medical world, including the WHO, believed for years that drug-resistant TB was virtually incurable in poor countries.

But successful treatment of patients by Farmer, Dr. Jim Yong Kim, and others at the Boston-based Partners in Health in the late 1990s in the Carabayllo slum outside Lima, Peru, showed that belief was false.

Drug-resistant TB is no longer a death sentence in many poor countries, but the discovery of XDR-TB in South Africa more than a year ago raised new difficulties about treating strains of a disease that respond to fewer and fewer drugs.

"We need to wake up and pay attention to what's happening with TB in other parts of the world," said Dr. Mark L. Rosenberg, the Harvard-educated executive director of the Task Force for Child Development and Survival in Atlanta. "We need to start treating XDR-TB where it is, not just respond to one case of one American who will get the finest treatment."