India reports new TB strain resistant to all drugs

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Indian doctors have reported the country's first cases of "totally drug-resistant tuberculosis," a long-feared and virtually untreatable form of the killer lung disease.

It's not the first time highly resistant cases like this have been seen. Since 2003, patients have been documented in Italy and Iran. It has mostly been limited to impoverished areas, and has not spread widely. But experts believe there could be many undocumented cases.

No one expects the Indian TB strains to rapidly spread elsewhere. The airborne disease is mainly transmitted through close personal contact and isn't nearly as contagious as the flu. Indeed, most of the cases of this kind of TB were not from person-to-person infection but were mutations that occurred in poorly treated patients.

What's more, there's a debate within the public health community about whether to even label TB infections as totally drug resistant. The World Health Organization hasn't accepted the term and still considers the cases to be what's now called extensively drug-resistant TB, or XDR. However, Dr. Paul Nunn, a coordinator at the WHO's Stop TB Department in Geneva, said there is ample proof that these virtually untreatable cases do exist.

The Indian hospital that saw the initial cases tested a dozen medicines and none of them worked, a pretty comprehensive assessment. A TB expert at the U.S. Centers for Disease Control and Prevention said they

do appear to be totally resistant to available drugs.

"It is concerning," said Dr. Kenneth Castro, director of the CDC's Division of Tuberculosis Elimination. "Anytime we see something like this, we better get on top of it before it becomes a more widespread problem."

Ordinary TB is easily cured by taking antibiotics for six to nine months. However, if that treatment is interrupted or the dose is cut down, the stubborn bacteria battle back and mutate into a tougher strain that can no longer be killed by standard drugs. The disease becomes harder and more expensive to treat.

In India, doctors in Mumbai have reported a total of 12 patients who failed initial treatment and also didn't respond to the medicines tried next over an average of two to three years. Three have died. None of the others have been successfully treated.

The doctors detailed the first four cases in a letter to a U.S. medical journal last month, blaming private doctors for prescribing inappropriate drug plans that sparked greater resistance in three of those four patients.

"These three patients had received erratic, unsupervised second-line drugs, added individually and often in incorrect doses, from multiple private practitioners," wrote the doctors from P.D. Hinduja National Hospital and Medical Research Center in the journal Clinical Infectious Diseases.

One of the doctors, Zarir Udwadia, in a phone interview, said there is little hope for the surviving nine patients, all poor slum dwellers living in the community. He said he has detected one case of a mother passing the strain to a daughter living in close quarters. One of the patients was also infected with HIV, which typically results in faster death.

Udwadia criticized the testing and treatment methods of the Indian government's TB program, which he says forces patients to turn to private doctors, many of whom do not understand how to properly treat TB or the risks of increasing drug resistance by prescribing the wrong drugs.

"It was a given that this would happen," Udwadia said. "They have had no help from the Indian TB system. They are the untouchables, so no one is making a fuss. They don't have the power to vocalize. There's going to be more family contacts. It's going to spread for sure."

India's Health Ministry did not respond to phone calls and written requests for comment Monday and last week.

Dr. Nata Menabde, WHO's representative in India, said a team of national experts started investigating the cases Monday. She said the government is also working to improve laboratory diagnostics to help find more drug-resistant cases, and discussions are ongoing to identify ways to regulate TB treatment in the private sector.

"Now there is a high urgency attached to these findings even though the knowledge about the existence of such cases is not new," she said. "The political momentum is right because it has attracted the top level of attention, given the seriousness of the matter."

Similar highly resistant cases have been noted before. In 2003, two Italian women died and there were 15 cases reported from Iran in 2009. That same year, The Associated Press reported on a case of a Peruvian teenager who was infected at home but diagnosed while visiting Florida. He was successfully treated for a year and a half with experimental high doses of medicines not typically used for TB, costing about $500,000.

Those resources are unthinkable in the developing world, where TB

remains a menacing killer and where few hospitals can perform tests to find out which antibiotics might work.

"For there to be another report coming out from India is no surprise at all. Indeed, in a sense, it's surprising it's taken so long," said WHO's Nunn. This is "yet another alarm call for countries and others engaged in TB control to do their jobs properly."

Tuberculosis is an age-old scourge that lies dormant in an estimated 1 in 3 people. About 10 percent of those people eventually develop active TB, which kills roughly 2 million a year, according to WHO. Each victim infects an average of 10 to 15 others every year, typically through sneezing or coughing.

If a TB case is found to be resistant to the two most powerful anti-TB drugs, the patient is classified as having multi-drug-resistant TB (MDR). An even worse classification of TB - one the WHO accepts - is extensively drug-resistant TB (XDR), a form of the disease that was first reported in 2006 and is virtually resistant to all drugs.

An estimated 20 percent of the world's multi-drug-resistant cases are found in India, which is home to a quarter of all types of tuberculosis cases worldwide.