

**The Times of India**

**Title : New drug for TB patients could CUT TREATMENT TIME**

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**Location :**

**Article Date : 11/24/2014**

### **Antibiotic Moxifloxacin, Used To Treat Pneumonia, Reduces Treatment Time From 6 To 4 Months**

Indian scientists may have found a game-changing discovery that will shorten treatment for tuberculosis to four months from the standard six-month regimen of medication, trials that included an antibiotic prescribed for infections like pneumonia have revealed.

Through the seven-year clinical trials, scientists at the National Institute for Research in Tuberculosis have found that including moxifloxacin, a potent antibiotic, in a four-month regimen proved to be better than the standard six-month treatment. The recurrence levels were almost the same in both the regimens but patients testing negative for potential to spread TB to others was higher with the new regimen.

The results, which were shared at the recent Union World Conference on Lung Health at Barcelona, come at a time when three other studies conducted in India and Africa showed that the four-month regimen might not be effective.

But scientists say shortening the treatment duration is important as many patients drop out of the programme within the first three weeks, once they are relieved of the symptoms, leading to a risk of contracting new, drug-resistant strains of the disease.

The effectiveness of the four-month regimen was proved on the basis of recurrence levels, number of patients testing negative in sputum smears and adverse effects to the drugs.

The researchers began the trials in May 2007 on 770 patients who had not previously received TB treatment. They were put on four different regimens and a control group of 160 patients received the standard six-month treatment.

The four different regimens three included a cocktail of four drugs -rifampicin, isoniazid, pyrazinamide, and ethambutol -that are prescribed in the standard treatment along with moxifloxacin for two months. The next two months the scientists gave patients a combination of drugs picked from the six-month treatment, with varied levels across the groups and at different intervals with the new antibiotic included.

The fourth regimen was an attempt to shorten the treatment to three months. It was however discontinued in 2011 after it did not show favorable results.

Of the three groups on four-month regimens, 96% of patients given a combination of rifampicin, isoniazid, ethambutol and moxifloxacin were cured of the infection compared to 91% of patients in the standard regimen. The percentage of recurrence for those given the first regimen was 4.6%, the same as those who received the standard six-month treatment.

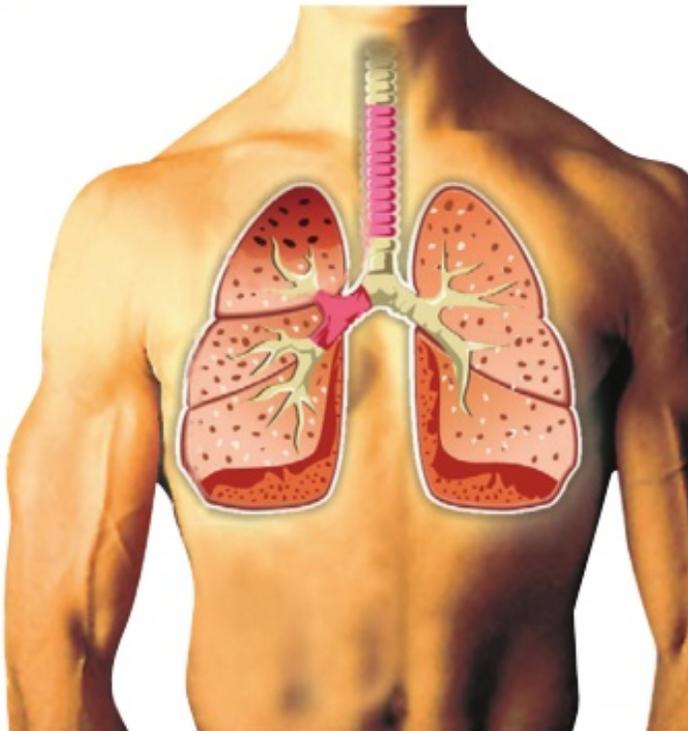
Of the patients given the new treatment 92% tested negative in sputum smears for potential to spread the disease within two months of the start of the treatment as compared to 74% of those given the standard treatment.

“Moxifloxacin is a potent drug in the family of quinolone antibiotics. It has side effects but they are not alarming,” Dr M S Jawahar, who led the study, said.

National Institute for Research in Tuberculosis director Dr Soumiya Swaminathan said the scientists are keeping the

Of the three groups on four-month regimens, 96% of patients given drugs including moxifloxacin were cured compared to 91% of patients in the standard regimen

## NEW HOPE



The new treatment may help counter tuberculosis, which is on the rise in the country, but the reporting system needs to be more efficient

### People suspected with tuberculosis

	All India	Tamil Nadu
2011	78,75,158	<b>6,76,634</b>
2012	78,67,194	<b>6,06,788</b>
2013	81,21,514	<b>6,59,389</b>

### People diagnosed and registered for treatment (DOTS)

	All India	Tamil Nadu
2011	15,15,872	<b>79,830</b>
2012	14,67,585	<b>79,576</b>
2013	14,10,880	<b>80,407</b>

▶ **Standard six-month treatment (DOTS) contains four drugs,** rifampicin, isoniazid, pyrazinamide and ethambutol

▶ **All four drugs taken thrice a week for the first two months.** Rifampicin and isoniazid alone taken thrice a week for the next four months

▶ **The four-month regimen that was found effective included all the four drugs along with moxifloxacin daily for the first two months** and rifampicin, isoniazid, ethambutol and moxifloxacin taken thrice a week for the next two months

▶ **Every dose supervised. Missed doses were compensated** for by medication for up to 15 days

▶ **Moxifloxacin is the most potent among the quinolones family of antibiotics.** It is usually prescribed for infections like pneumonia and acute bronchitis

▶ **Clinical trials show that four-month regimen was effective as six month regimen in TB recurrence** as it was found to be equal

▶ **The new regimen also showed that 92% of patients in trials tested negative in sputum smears two months after the start of the treatment** as against 74% of patients who underwent standard six-month treatment

▶ **6% of patients had adverse effects to the medication** as against 4% in the six-month regimen

## **The Times of India**

**Title : Govt not notified of cases treated by pvt docs**

**Author :**

**Location :**

**Article Date : 11/24/2014**

The country may be registering an alarming increase in the incidence of tuberculosis, but several cases of multi-drug resistant tuberculosis (MDR TB) treated by private doctors and hospitals are not reported to the government.

Doctors say various studies have shown that about 3% fresh TB cases and between 16% and 22% of recurring cases could be MDR TB, and it is worrying that there are gaps in official notification of these cases by patients and healthcare providers.

“While TB is a notifiable disease, the government is not notified about 60% to 65% of patients in urban areas who are treated for the disease by private healthcare providers,” REACH Foundation director Dr Nalini Krishnan said.

She recalled a study conducted in Mumbai that showed that the actual number of patients with MDR TB was about 10% higher than the number notified to the government.

In June, TOI reported that Corporation of Chennai refused to provide information to an RTI petition seeking the number of MDR TB and XDR-TB cases and deaths in Chennai.

Medical experts blame flaws in the system of notification for the poor implementation. “Getting a medical practitioner to notify fresh cases of TB is a big challenge. Though the government order on notification also implies reporting of MDR TB, it all depends on the practitioner,” Institute of Chest Medicine director Dr D Ranganathan said. “With recurring cases diagnosed as MDR TB, it is actually renotification because the earlier infection would have been notified.”

While lack of awareness among patients and practitioners on notification of cases, doctors say the stigma attached to the disease is another reason for the lack of reporting. “Many doctors don't notify cases because they consider it a breach of patient confidentiality,” Dr Krishnan said.