

Daily DOTS- A much awaited transition for Tuberculosis control

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The TB control in India started in 1962 as the national tuberculosis programme (NTP), which was later reappraised to the Revised National TB Control Programme (RNTCP) in the year 1997 [1]. Since then the TB control throughout the country was done by an alternate day/intermittent regimen through directly observed treatment [1].

A total 127 out of 132 countries that started with intermittent treatment regimens with DOTS have changed to daily treatment [2]. In fact, except India and one province of China, no other country in the world uses an intermittent regimen in the intensive phase [2]. Also, among the remaining countries, only Cuba, Peru, Uruguay and Columbia, follow alternate day regimen only in the continuation phase post daily drug treatment in the intensive phase for the TB management [2].

The treatment in private settings has always been a daily drug regimen with various drugs and dose formulations [3]. This difference has led to increased chances of the development of drug resistance and higher number of relapse cases thus there have always been a need to streamline the TB treatment across India and the same has been advocated by the WHO in the year 2010 [1,2,4].

In view of, India being one of the heavy burden countries for the disease, the Government of India has finally revised the alternate day/intermittent drug regimen of DOTS to daily DOTS [3,5]. This is a noteworthy move in the TB control approach that has been trailed by the Central TB Division since 1997 [3]. Initially the daily DOTS will be started in five states, and then it will be rolled over the entire country [3,6].

The new daily drug therapy under RNTCP will include three or four first line antitubercular drugs in specific dosages in a single pill to be administered to the TB patient on a daily basis based on the weight of the patient, these combinations will be popularly known as the fixed drug combinations (FDCs) [7].

The benefit for the patients with these FDCs will be the reduced pill burden and this initiative would thus help in treatment adherence and worthiness and by and large, improve the treatment outcome of the patient [7].

The move to the daily drug regimen is expected to bring in an increased enrolment of patients in RNTCP in each state, by at least 20% [3]. As majority of those resorting to private setting due to daily drug regimens will also resort to the public hospitals since the whole treatment is free of cost. Thereby increasing the overall

TB notification and will help in identifying a clearer picture about the disease.

TB has been a public health problem and an age old control program needs timely revision in order to fight this deadly disease that is taking a life every 21 seconds [8,9]. The move to start the daily DOTS will not only help patients, but hopefully will also help the country to achieve TB elimination by 2025. Furthermore, with about 40% population infected with TB bacteria, such a major reform was imperative.

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References

1. Chaudhuri AD. Recent changes in technical and operational guidelines for tuberculosis control programme in India - 2016: A paradigm shift in tuberculosis control. *J Assoc Chest Physicians*. 2017;5:1-9.
2. Jain Y. India should introduce daily drug treatment for tuberculosis. *BMJ*. 2013;347:f6769.
3. Maya C. TB: State to launch daily drug regimen. Available from URL:- <http://www.thehindu.com/news/national/kerala/TB-State-to-launch-daily-drug-regimen/article17204842.ece>. Last accessed 2017 on June 14.
4. WHO. Treatment of Tuberculosis, Guidelines. 2010. Available from URL:- <http://www.who.int/tb/publications/2010/9789241547833/en/>. Last accessed 2017 on June 20.
5. Yadav S, Rawal G. The novel concept of creating awareness about tuberculosis at the metro stations. *Pan Afr Med J*. 2016;23:228.
6. Diggikar R. Daily drug regimen for TB to be launched in state from October. Available from URL:- <http://timesofindia.indiatimes.com/city/aurangabad/Daily-drug-regimen-for-TB-to-be-launched-in-state-from-October/articleshow/53680172.cms>. Last accessed 2017 on June 20.
7. Revised National TB Control Programme. Technical and Operational Guidelines for Tuberculosis Control Programme in India - 2016. Available from URL:- <http://tbcindia.gov.in/index1.php?lang=1&level=2&sublinkid=4573&lid=3177>. Last accessed 2017 on June 19.
8. Yadav S, Rawal G. Primary extrapulmonary multidrug-resistant tuberculosis in an immunocompetent child presenting with pleural effusion. *Transl Pediatr*. 2017;6(1):72-5.
9. Malikarjun Y. Novel mechanism may lead to better TB control. Available from URL:- <http://www.thehindu.com/sci-tech/health/novel-mechanism-may-lead-to-better-tb-control/article6764393.ece>. Last accessed 2017 on June 20.