

Six-month treatment effective for multi-drug-resistant TB, study finds

A study has revealed that a novel six-month treatment regimen is effective for multi-drug-resistant tuberculosis (MDR-TB).



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The NExT Study, a randomised TB trial set out to determine whether treatment for multi-drug-resistant TB rifampicin-resistant TB (MDR/RR-TB) could be shortened to six months using oral medication – the same length currently used for drug-sensitive TB.

The research was performed across five different settings in South Africa, where participants were randomly assigned to receive the novel six-month oral regimen.

This was compared to the World Health Organisation's (WHO) approved nine-month injectable-based treatment.

“The key finding was that the new regimen was more than twice more likely to lead to favourable outcomes than the traditional approach despite the regimen only being taken for six months,” the South African Medical Research Council (SAMRC), which funded the study, said.

Meanwhile, the rate at which TB is no longer detectable in sputum samples occurred 2.6 times faster in the intervention arm compared to the participants who only received the WHO's recommended injectable-based regimen.

“Treatment success was achieved in 75% of patients in the intervention arm,” the statement read, adding that successful treatment outcomes of MDR-TB in endemic countries in 2019 were between 50% and 60%.

The NExT oral regimen, according to the SAMRC, was made up of five drugs taken for six months.

However, according to the research organisation, most MDR-TB patients cannot access newer drugs and the short injectable regimen remains the standard of care in many TB endemic countries.

“Access to newer drugs is limited by affordability and other access barriers and only 40% of MDR-TB patients globally can access any kind of treatment.”

Feasible

The researchers believe that these findings suggest that a six-month oral regimen for MDR-TB is feasible.

“Using a shorter oral six-month regimen will mean that painful and toxic injectable drugs will be avoided and the shorter regimen is likely to improve compliance, completion rates, and reduce the overall cost to TB programmes.”

Professor Keertan Dheda, NExT Study’s principal investigator, said, this sets a new benchmark for the treatment of MDR-TB, which threatens to derail TB control in many parts of the world, including Eastern Europe and Russia.

“The next step will be to test more effective six-month regimens that can improve treatment success closer to 90% or even higher.”

According to Dheda, who is also a director of the SAMRC/UCT Centre for the Study of Antimicrobial Resistance Research Unit, 60% of the world’s MDR-TB patients have no access to treatment, while the rest in many TB endemic countries have zero access to the newer drugs.

Improved adherence

The SAMRC president and CEO, Professor Glenda Gray, has welcomed the findings and described them as a huge advance in TB control in South Africa and beyond.

“Not only do the findings have the potential to change TB clinical practice but could also transform the way we treat patients with drug-resistant forms of TB here at home and in other parts of the world,” said Gray.

Gray also believes that shorter drug regimens could improve adherence.

Director for drug-resistant TB, TB & HIV at the National Department of Health, Dr Norbert Ndjeka, said patients who do not return for continued care or evaluation and high death rates are major challenges in managing MDR-TB in South Africa.

“We are very excited about the NeXT study results, as a shorter treatment regimen could go a long way in reducing loss to follow-up, and the new and repurposed drugs have helped to reduce the death rate amongst MDR-TB patients,” Ndjeka added.