



NOVEL REGIMENS: NEW MOMENTUM IN FINDING NOVEL TB CURES

A decade ago, there were no new drugs to treat tuberculosis under development—and no hope for a better, faster TB cure. However, over the past 10 years, donors, governments, not-for-profit organizations, and others have invested in research and development of new TB technologies, resulting in a portfolio of promising drugs. Today, the global TB drug pipeline is more robust and promising than ever, offering new promise in the fight against the global TB pandemic.

INNOVATION: SPEEDING URGENTLY NEEDED TB REGIMENS

TB treatment must always be given in multi-drug cocktail combinations. However, traditionally, TB drugs were developed one at a time, and then once approved, substituted for another drug in the current sub-optimal therapy. That meant developing a completely new TB regimen could take a quarter of a century or more.

Today, with a number of drugs in the pipeline, there is an unprecedented opportunity: test and develop these promising drug candidates together to speed the development of entirely novel regimens—and deliver better, faster, and affordable TB regimens in just a fraction of the time to those who need them.

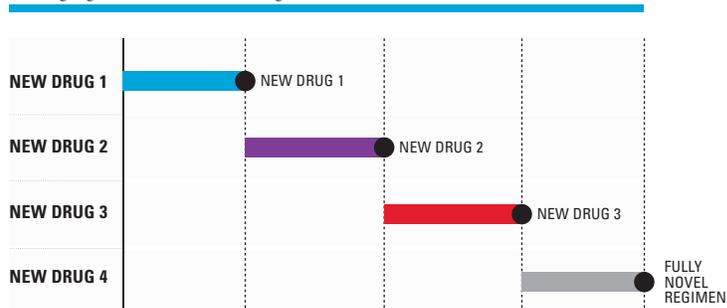
RAMPING UP REGIMEN DEVELOPMENT

In 2010, the TB Alliance launched the first novel TB regimen trial in this new clinical research paradigm called NC001, or New Combination 1. This trial validated the approach of regimen development, and was completed with promising results.

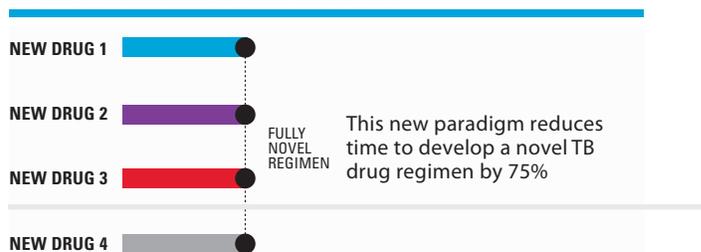
A threshold has been crossed and today, regimen development is gaining momentum. TB Alliance will conduct a wave of new research of promising novel combinations, with a number of trials set to launch in 2012 and 2013. Working with more companies and more compounds, TB Alliance is redefining TB research to find the most effective drug regimens.

CURRENT REGIMEN DEVELOPMENT PARADIGM:

Existing regimen consists of four drugs



NOVEL COMBINATION TESTING PARADIGM:



THE GLOBAL TB DRUG PIPELINE IS MORE ROBUST AND PROMISING THAN EVER.

WHY NOVEL REGIMENS?

Today's tuberculosis treatments must be taken for 6-30 months. They are too long, complicated, and burdensome—and in the case of drug-resistant TB, neither sufficiently effective nor affordable.

Novel regimens have the potential to be shorter, safer, simpler, affordable therapies, and importantly, in the context of appropriate drug-sensitivity testing, be able to treat both drug-sensitive TB and drug-resistant TB with a single regimen. By drastically reducing the time and cost associated with treating multi-drug resistant TB, these new regimens could transform MDR-TB treatment, enabling much wider access to treatment.



NOVEL REGIMENS HAVE THE POTENTIAL TO BE SHORTER, SAFER, SIMPLER, AFFORDABLE THERAPIES, AND IN THE CONTEXT OF APPROPRIATE DRUG-SENSITIVITY TESTING, BE ABLE TO TREAT BOTH DRUG-SENSITIVE TB AND DRUG-RESISTANT TB WITH A SINGLE REGIMEN.



SIGNATURE MILESTONES IN NOVEL REGIMEN DEVELOPMENT

NC001 Trial *(Completed)*

NC001, or New Combination 1, was the first clinical trial to test multiple new TB drug candidates in combination. It tested the novel TB drug candidate PA-824, the antibiotic moxifloxacin (which is not yet approved for treatment of TB), and pyrazinamide. This ARV-compatible combination – known as PaMZ – performed extremely well compared to the standard of care. NC001 was a two-week clinical trial that validated the theory of regimen development and proved that these more efficient trials were possible. Preliminary results were presented at scientific conferences, with full results expected to be submitted for publication in 2012.

NC002 *(Launched)*

NC002 builds on the success of NC001 by testing the PaMZ regimen. For the first time in history, this trial will enroll both drug-sensitive and MDR-TB patients, testing the same regimen in both populations—truly paving the way for a new approach in TB treatment. If successful, this 2-month Phase IIb trial will set the stage for pivotal registration trials of a regimen that could shorten the treatment of MDR-TB from 2 years to 4 months – a reduction of more than 80%.

Multiple Sponsors, One Regimen

Great progress can be achieved when public and private partners work together to harness the promise of the entire pipeline. Upcoming clinical trials will investigate new TB drug combinations assembled with candidates from multiple different organizations' and companies' portfolios. Such collaborations are forged under the guidance of the TB Alliance.

A Continuing Commitment to Progress

Our vision is that TB should be treated like any other infection—in 10 days or less. TB Alliance is constantly surveying the global pipeline to identify next-generation regimens with the promise of shortening and simplifying treatment. This early-stage research fuels the pipeline with the most promising regimens assembled from the global portfolio has to offer. Future trials will continue to speed TB drug combinations into clinical-stage development and to the patients who need them.