

In the news

NEW TB DRUG COCKTAIL

The development of novel combination therapies is one of several strategies that are currently being pursued to combat tuberculosis (TB). Recently, researchers at the XIX International AIDS Conference presented the results of a groundbreaking clinical trial which showed that a combination of three drugs can kill more than 99% of *Mycobacterium tuberculosis* in infected patients.

The 2-week trial, the results of which were published in *The Lancet*, assessed the bactericidal activity of three drugs administered together, two of which have not yet received US FDA approval for TB treatment. This new cocktail, termed PaMZ, consisted of the novel drug candidate PA-284, the antibiotic moxifloxacin and the existing TB drug pyrazinamide. The results indicate that PaMZ not only is more effective than current treatments, but also could substantially shorten drug regimens and is potentially active against multidrug-resistant infections.

Melvin Spigelman, chief executive of the TB Alliance, commented that “the implications of this trial are huge” and went on to say that this was the first trial to assess the activity of more than one unapproved TB drug at a time (*The Guardian*, 23 Jul 2012), a move that was facilitated by the FDA after they relaxed the rules for the approval of novel drug combinations in 2010 (*Nature News*, 24 Jul 2012).

In a commentary in *The Lancet*, Giovanni Battista Migliori, of the WHO, said that the study has made “several important contributions to the existing body of knowledge,” including the encouraging indication that PaMZ may be compatible with antiretrovirals; this potential could see huge improvements in the treatment of individuals co-infected with HIV and *M. tuberculosis*. However, Migliori also cautions that “a careful assessment of toxic effects in future studies” is needed and that prudent use of these drugs will be crucial to prevent “losing these agents in a time shorter than that needed to develop them”.

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