New study shows faster way to cure vivax malaria

A large clinical trial in Africa and Asia has shown that a 7 day course of high dose primaquine, a drug used to treat P. vivax malaria, is well tolerated and just as effective as the current standard 14 day regimen, according to a study published this week in The Lancet.

Researchers say the findings have important implications for the treatment and elimination of vivax malaria in the Asia Pacific.

The study was coordinated by the Menzies School of Health Research (Menzies, Darwin, Australia), the Mahidol Oxford Research Unit (MORU, Bangkok, Thailand) and the Eijkman Institute of Molecular Biology (Jakarta, Indonesia). Its findings challenge the standard treatment regimen that has been widely used for the last 60 years.

The WHO recommends that patients with P. vivax malaria are treated with antimalarial drugs to clear the parasites in the blood followed by a 14-day course of primaquine to kill the liver hypnozoites and prevent recurrent bouts of malaria.

Associate Senior Clinical Research Fellow Dr Bob Taylor, MORU, says adherence to the standard 14-day regimen is poor.

“Primaquine is the only widely available drug that kills the P. vivax hypnozoites in the liver, but patients often fail to complete the treatment once they feel better. We found that the 7-day high-dose course of primaquine was as effective as the recommended 14-day treatment,” Dr Taylor said.

P. vivax malaria is a major cause of illness in Asia, Oceania, the Horn of Africa, and the Americas. The P. vivax parasites has dormant forms in the liver called hypnozoites, that wake up weeks to months later causing relapses - multiple episodes of malaria that lead to repeated illness and time of work and school.

Senior Researcher Dr Kamala Thriemer (Menzies) says a shorter treatment prevents multiple episodes of malaria that lead to ill health particularly in young children and pregnant women.

“The shorter, 7 day primaquine regimen worked very well, with very few people having another episode of malaria within 12 months. Although some patients had minor side effects, the drug was generally well tolerated,” Dr Thriemer said.

The study’s principal investigator Prof Ric Price (University of Oxford) said: “Vivax malaria is becoming the predominant cause of malaria in the Asia Pacific. A short course primaquine regimen is much easier to administer and patients are more likely to complete treatment.”

“If used widely, this new regimen could help reduce and accelerate the elimination of vivax malaria from the region,” said Prof Price.

The study will be published in the prestigious international journal “The Lancet” on July 19 2019.
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Reference

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Notes for editors
Mahidol Oxford Tropical Medicine Research Unit (MORU), www.tropmedres.ac, is a research collaboration between Mahidol University (Thailand) and University of Oxford and Wellcome (UK).

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