

## **In vitro susceptibility of *Plasmodium falciparum* isolates from Myanmar to antimalarial drugs**

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### **Abstract.**

In vitro drug susceptibility profiles were assessed in 75 *Plasmodium falciparum* isolates from 4 sites in Myanmar. Except at Mawlamyine, the site closest to the Thai border, prevalence and degree of resistance to mefloquine were lower among the Myanmar isolates as compared with those from Thailand. Geometric mean concentration that inhibits 50% (IC<sub>50</sub>) and 90% (IC<sub>90</sub>) of Mawlamyine isolates were 51 nM (95% confidence interval [CI], 40–65) and 124 nM (95% CI, 104–149), respectively. At the nearest Thai site, Maesod, known for high-level multidrug resistance, the corresponding values for mefloquine IC<sub>50</sub> and IC<sub>90</sub> were 92 nM (95% CI, 71–121) and 172 nM (95% CI, 140–211). Mefloquine susceptibility of *P. falciparum* in Myanmar, except for Mawlamyine, was consistent with clinical-parasitological efficacy in semi-immune people. High sensitivity to artemisinin compounds was observed in this geographical region. The data suggest that highly mefloquine-resistant *P. falciparum* is concentrated in a part of the Thai-Myanmar border region.