

COSTS-EFFECTIVENESS OF
ARTEMISININ - DOXYCYCLINE AND QUININE -DOXYCYCLINE
IN HOSPITAL BASED FALCIPARUM MALARIA TREATMENT IN VIETNAM



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The goal of this study is to identify the costs and effectiveness of artemisinin + doxycycline and quinine + doxycycline combinations in hospital based falciparum malaria treatment to select the more cost-effective drug regimen for falciparum malaria treatment at district hospital level.

Two drug regimen groups with 131 falciparum inpatients were treated and followed up for 28 days in Lamha district hospital, Lamdong province in Vietnam. Among them, 66 patients were treated by artemisinin (Art) dose of 10 mg/kg/day for 5 days in combination with doxycycline (Dox) dose of 2 mg/kg/day for 5 days. 65 patients were treated by quinine (Qui) dose of 30 mg/kg/day for 5 days in combination with doxycycline dose of 2 mg/kg/day for 5 days.

Average provider costs per malaria patient in vivo test 28 days observation period were 232,381 VN dong (\$22.1) in the Art + Dox drug group and 231,089 VN dong (\$22.0) in the Qui + Dox drug group. Average costs incurred by patient were 246,352 VN dong (\$23.4) in the Art + Dox drug group and 252,019 VN dong (\$24.0) in the Qui + Dox drug group.

The effectiveness of the Art + Dox drug regimen was 95.45% significantly higher than 83.08% in the Qui + Dox drug regimen with $p < 0.05$.

The cost-effectiveness ratio to provider in the Art-Dox drug regimen was 160,682 VN dong (\$15.9) lower than 170,343 VN dong (\$16.2) in the Qui + Dox drug regimen. And the cost-effectiveness ratio to patient in the Art + Dox group was 180,799 VN dong (\$17.2) also lower than 197,174 VN dong (\$18.8) in the Qui + Dox group.

The study suggested that the Art + Dox drug regimen was more costs-effective for both of provider and patient perspectives. It should be chosen for treatment of resistant falciparum malaria at district hospital level and if artemisinin is available, it should be used in community hospital under the control of the national malarial control programme.

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