

Management of Uncomplicated Falciparum Malaria

The WHO statement on treatment of malaria recommends Artemisinin - based combination therapy (ACT) as the first line drugs for managing uncomplicated falciparum malaria in all age groups including young infants(1). Chloroquine and sulfadoxine-pyrimethamine are not recommended for treating uncomplicated falciparum malaria.

ACTs recommended by WHO are artemether-lumefantrine, artesunate + amodiaquine, artesunate + mefloquine and artesunate + sulfadoxine-pyrimethamine. Artesunate + mefloquine or artemether-lumefantrine are recommended in areas of multidrug resistance *e.g.*, South-East Asia.

Artemether-lumefantrine is currently available in the Indian market as co-formulated tablets containing 20 mg of artemether and 120 mg of lumefantrine. The total recommended treatment is a 6-dose regimen of artemether-lumefantrine twice a day for 3 days. Cost of treatment for a child less than 3 years old is approximately Rupees 120 which shoots up to around Rupees 480 if the patient is more than 14 years old.

1. What should be the alternative treatment of uncomplicated falciparum malaria in situations of non-availability of ACTs, which will be a frequently faced problem till wider availability of these drugs is ensured.
2. In India implementation of this recommendation as a national policy seems unrealistic in view of the financial and operational challenges. What will be the impact of this recommendation on public health programs like National Malaria Eradication Program?

REFERENCE

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Reply

To counter the increasing resistance of *P. falciparum* to mono therapy and to improve treatment outcome, combinations of antimalarial drugs are now recommended by WHO for the treatment of falciparum malaria. The evidence for the superiority of artemisinin based combination therapy (ACT) in comparison to mono therapies has been clearly documented(1). To combat drug resistant malaria, the National Vector Borne Disease Control Program also recommends the use of combination therapy *i.e.*, artesunate plus sulfadoxine/pyrimethamine (SP) for *P. falciparum* cases in chloroquine resistant areas. The rationale for a combination therapy is the additive action of two drugs to improve efficacy and to delay development of drug resistance to individual drugs if used as monotherapy(2). The possible limitation of ACTs in a country like India is their relative high cost of therapy and lack of ready availability.

The current recommended treatment for chloroquin resistant uncomplicated falciparum malaria is the administration of artesunate 4 mg/kg/day once daily for 7 days followed by on next day sulfadoxine/pyrimethamine as a single dose or mefloquin given in two divided doses 4 to 6 hours apart. A single dose of primaquin (0.75 mg/kg) should be given for gametocidal action. The treatment options for multidrug (chloroquin and sulfadoxine) resistant falciparum include quinine with either tetracycline or clindamycin(2). However, artemether-lumefantrine combination which has been tested in some developing countries remains a viable option(3,4).

The implementation of ACTs as a national

policy seems to be a challenge in the near future due the logistic and financial constraints. Public health programs and policies are dynamic and evolving processes and hence it would be premature and hazardous to foresee any implication that ACTs may have on malaria control strategies under National Vector Borne Disease Control Program. Strengthening weak components of health systems and improving the delivery of effective interventions should remain high priority in implementing new treatment policies for malaria.

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