

## Original Article

## The Efficacy of Artemether/Lumefantrine for the Treatment of Uncomplicated Falciparum Malaria in Children in an Area of High Transmission in Southern Sudan

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### Abstract

**Objectives:** Sudanese health authority adopted a new antimalarial drug policy in response to the reported high level of chloroquine resistance. "Artesunate+ sulfadoxine/pyrimethamine" (ASP) and "artemether/lumefantrine" (A/L) are recommended as first and second lines for the treatment of uncomplicated falciparum malaria respectively. This study aims to evaluate the clinical and parasitological response to A/L and to report any side effects related to the drug in children living in high transmission areas.

**Methods:** This evaluation of the clinical and parasitological response to directly observed treatment with 6 doses A/L following WHO protocol for monitoring antimalarial drugs efficacy. Giemsa-stained thick and thin blood smears were examined microscopically on days 0, 2, 3, 7, 14, 21 and 28, or at other times if a patient felt unwell. The primary end point was the 28-day cure rate and the secondary end points were time to parasite clearance.

**Results:** A total of 75 (40.8%) patients met the inclusion criteria, of them 70 (97.2%) patients showed adequate clinical and parasitological response (radical cure), 2 (2.8%) patients were classified as early treatment failure and 3 (4%) patients were lost to be followed-up by day 3. No progression to severe illness or danger signs occurred for any patient during the study.

**Conclusion:** The main outcome of study was that A/L was found to be highly effective against *Plasmodium falciparum* uncomplicated malaria, well tolerated by children with no reported serious side effects. Dramatic decrease in parasites density and fever were observed in most of the cases by day 3 of treatment.