

DRUG

INF



UNIT FARMASI
HOSPITAL KOTA MARUDU

ISSUE:01/19

Tablet Artemether 20mg/
Lumefantrine 120mg
(Riamet)

Introduction

Riamet contains two substances called artemether and lumefantrine. One tablet contains 20 mg artemether and 120 mg lumefantrine

Indication

Riamet is indicated for the treatment of acute uncomplicated *Plasmodium falciparum* malaria in adults, children and infants of 5 kg and above.

Mechanism of Action

Artemether and major metabolite dihydroartemisinin (DHA) are rapid schizontocides with activity attributed to the endoperoxide moiety common to each substance. Artemether inhibits an essential calcium adenosine triphosphatase. The exact mechanism of lumefantrine is unknown, but it may inhibit the formation of β -hematin by complexing with hemin. Both artemether and lumefantrine inhibit nucleic acid and protein synthesis. Artemether rapidly reduces parasite biomass and lumefantrine eliminates residual parasites.

Dosage and Administration

Adults and children >12kg weighing 35 kg and above

Six doses of four tablets: the first dose of four tablets given at hour 0, then four tablets given at hours 8, 24, 36, 48 and 60.

Children and infants weighing 5 kg to less than 35 kg

5 - 15 kg: the first dose of one tablet given hour 0, then one tablet given at 8, 24, 36, 48 and 60 hours.

15 - 25 kg: the first dose of two tablets given at hour 0, then two tablets given at 8, 24, 36, 48 and 60 hours.

25 - 35 kg: the first dose of three tablets given at hour 0, then three tablets given at 8, 24, 36, 48 and 60 hours.



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Makanga M, Premji Z, Falade C, et al, "Efficacy and Safety of the Six-Dose Regimen of Artemether-Lumefantrine in Pediatrics With Uncomplicated *Plasmodium falciparum* Malaria: a Pooled Analysis of Individual Patient Data," *Am J Trop Med Hyg*, 2006, 74(6):991-8. [PubMed [16760509](#)]

Editorial board

Editors:

- 1) Tiew Lu Wun
- 2) James Lee Hui-Ying

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Warning and Precautions

QT prolongation: Use associated with prolonging the QT interval; avoid use in patients at risk for QT prolongation, including patients with a history of long QT syndrome, family history of congenital QT prolongation or sudden death, symptomatic arrhythmias, clinically relevant bradycardia, severe heart disease, known hypokalemia, hypomagnesemia or concurrent administration of antiarrhythmics, drugs metabolized by CYP2D6 known to have cardiac effects), or other drugs known to prolong the QT interval

Adverse Effect

Riamet can cause anaphylactic reactions. The drug frequently causes headache, dizziness and anorexia. Other common side effects (>3%) include sleep disorder, tinnitus, tremor, palpitation, vertigo, GI disorders, itch and nasopharyngitis.

Monitoring Parameter

Monitor patients for adequate food consumption (to ensure absorption and efficacy); ECG monitoring is advised if concomitant use of other agents that prolong the QT interval is medically required

Clinical Efficacy

The efficacy of the six-dose regimen of Riamet has been confirmed in many different patient populations around the world, consistently achieving **28-day PCR-corrected cure rates of >95%** in the evaluable population, rapidly clearing parasitaemia and fever, and demonstrating a significant gametocidal effect, even in areas of widespread parasite resistance to other antimalarials.

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McGready R, Tan SO, Ashley EA, et al, "A Randomised Controlled Trial of Artemether-Lumefantrine Versus Artesunate for Uncomplicated Plasmodium falciparum Treatment in Pregnancy," *PLoS Med*, 2008, 5(12):e253. [PubMed [19265453](#)]

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Toovey S and Jamieson A, "Audiometric Changes Associated With the Treatment of Uncomplicated Falciparum malaria With Co-Artemether," *Trans R Soc Trop Med Hyg*, 2004, 98(5):261-7. [PubMed [15109547](#)]

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