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Response of imported malaria patients to antimalarial medicines in Sri Lanka following malaria elimination

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Having being certified as malaria free in 2016 by the WHO, Sri Lanka only encounters imported malaria cases at present, which emphasizes the need for following-up the therapeutic response to currently used antimalarials. The objective of this study was to assess the response to anti-malarial medicines administered to the imported cases reported in Sri Lanka during 2015-2016. Patients were managed with first-line quality assured anti-malarials and followed up for 28 days, both clinically and parasitologically, according to the WHO and Sri Lanka National guidelines. The primary outcomes measured were: a) Early Treatment Failure (ETF), b) Late Clinical Failure (LCF), c) Late Parasitological Failure (LPF) and d) Adequate Clinical and Parasitological Response (ACPR). Seventy-fourmicroscopically confirmed patients comprising 44.6% (33/74) *Plasmodium falciparum*, 43.2 % (32/74) *P.vivax*, 9.5% (7/74) *P.ovale* and 1.3% (1/74) each of *P.malariae* and *P.knowlesi*were included in this study. Fifteen persons (20.3%) had severe infections (all due to *P.falciparum*) and 59 persons had uncomplicated infections. Uncomplicated *P.falciparum*and *P.knowlesi*were treated with the full course of artemetherlumefantrine (AL).Uncomplicated malaria infections due to *P.vivax*, *P.ovale* and *P.malariae* were treated with chloroquine. Severe malaria were treated either with AL or IV artesunate. Uncomplicated non-falciparum had 100% ACPR. Uncomplicated falciparum cases had 94.4% of ACPR and had one LCF. Severe *P. falciparum*patients had two LCF (13.3%) while the rest (n=13) had ACPR (86.7%). Patients that had LCF initially were re-treated with the same regimen resulting in 100% ACPR. This study highlights the importance of following-up malaria patients to confirm ACPR, especially severe malaria.

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