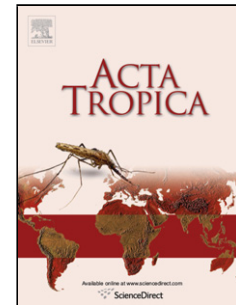


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## Malaria and HIV among pediatric inpatients in two Tanzanian referral hospitals: a prospective study

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### Highlights

- Malaria is over-diagnosed even at referral hospitals using blood slides.
- HIV increases the risk of malaria and leads to higher mortality from malaria.
- Parasite clearance is delayed in children infected with HIV.
- Referral hospitals in Africa should consider using malaria rapid diagnostic tests.

### Abstract

Malaria remains common in sub-Saharan Africa, but it is frequently over-diagnosed and over-treated in hospitalized children. HIV is prevalent in many malaria endemic areas and may delay parasite clearance and increase mortality among children with malaria. This prospective cohort study enrolled children with suspected malaria between 3 months and 12 years of age hospitalized at two referral hospitals in Tanzania. Both a thick blood smear (BS) and a malaria rapid diagnostic test (mRDT) were performed. If discordant results were obtained, PCR was performed for *P. falciparum*. Malaria was confirmed if two out of three tests were positive. Malaria parasite densities were determined for two consecutive days after diagnosis and treatment of malaria. All participants were tested for HIV. Among 1492 hospitalized children, 400 (26.8%) were enrolled with suspected malaria infection. There were 196/400 (49.0%) males, and the median age was 18 [9-36] months. BS was positive in

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