



ANTIMALARIAL DRUGS FOR PEDIATRICS - PRESCRIBING AND DISPENSING PRACTICES IN INDIA

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ABSTRACT

Malaria is India's leading cause of morbidity and mortality. Every year, 14–18 million new cases of malaria are registered in the India. 120,000 people died in India as a result of the conflict the age of 18. More than five years old which the rate is 400–500 per 1,000 inhabitants, and For children under the age of five, the number more than doubles years of age About 1. In 70,000 of these deaths occur in children under % of the population is expected to be affected. Malaria care consumes 1% of GDP representing US\$2.2 per capita and 39% of total revenue total health-care spending in the India. Approximately one-third of the budget is allocated to government services a portion of their money to fight malaria. Private spending, mainly on medications, coils, and other similar items 71 percent of the amount is spent on sprays and bed-nets the expenses Irrational prescribing has been proven in studies. Antimalarial medications are widely available in most countries. African countries as an example. The aim of this study was to assess prescribing and dispensing practices of artemether-lumefantrine to pediatrics patients in the public hospitals and private pharmacies. The specific goals were to assess parents awareness and knowledge regarding malaria in children as well as their level of understanding of given instructions. Malaria Rapid Diagnostic Tests (MRDTs) have greatly improved malaria diagnosis in Tanzania since their introduction recently. The current use of MRDT may have aided in effective malaria diagnosis and, as a result, low antibiotic use in this study. This study discovered irrational antimalarial drug dispensing, prescribing, and subsequent improper usage in children. Since Tanzania's anti-malarial drug policy was recently revised, it is recommended that strategies such as creating and disseminating easy-to-follow treatment recommendations, as well as a frequent audit of their implementation, be implemented. In addition, prescribers and medication dispensers should receive ongoing medical and pharmacy education on responsible drug use and evidence-based medicine.

Key words Malaria, India, Mortality, Pediatrics, Infectious diseases.

INTRODUCTION

Malaria is India's leading cause of morbidity and mortality. Every year, 14–18 million new cases of malaria are registered in the India [1]. 120,000 people died in India as a result of the conflict the age of 18. More than five years old which the rate is 400–500 per 1,000 inhabitants, and For children under the age of five, the number more than doubles years of age About 1 [2]. In 70,000 of these deaths occur in children under % of the population is expected to be affected. Malaria care consumes 1% of GDP representing US\$2 [3]. Per capita and 39% of total revenue

total health-care spending in the India[4]. Approximately one-third of the budget is allocated to government services a portion of their money to fight malaria [5]. Private spending, mainly on medications, coils, and other similar items 71 percent of the amount is spent on sprays and bed-nets the expenses irrational prescribing has been proven in studies [6]. Antimalarial medications are widely available in most countries [7]. African countries as an example. Antimalarials and antibiotics are given to the patients together for paediatrics, with just a few exceptions

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consideration of drug resistance and side effects creation of a reaction Medications Prescription errors are very common [8]. Antimalarial drugs combined with analgesics is also a viable option. This is a common activity. The condition of the patient the temperature could be decreased without the use of drugs. Fanning and tepid sponging are examples of methods [9]. These techniques are especially important for young children, and can assist in their growth. and if you don't give it a chance to cool down antipyretics are drugs that reduce the body's temperature. In most areas, including India, the private retail sector has been described as a potential growth area. A significant source of drugs in close proximity to people's homes residences. However, because of the hegemony, Malaria care not provided by the government facilities, and techniques for regulating behaviour in the workplace [10]. The private sector is needed. The routines under which drugs are dispensed by drug dispensing staff in When it comes to private pharmacy sources, there are a lot of them insufficient in terms of the type of drug as well as their dose. Health resources are scarce [11]. The growing number of people who are aware of the problem Over-the-counter medications for children are available. Counter-serve to draw attention to the growth, pharmacist's role in the community is crucial ensuring proper medication administration [12].

AIM AND OBJECTIVES:

The aim of this study was to assess prescribing and dispensing practices of artemether-lumefantrine to pediatrics patients in the public hospitals and private pharmacies. The specific goals were to assess parents awareness and knowledge regarding malaria in children as well as their level of understanding of given instructions.

MATERIAL AND METHODS:

Food and Drugs Authority provided a list of currently licenced private retail community pharmacies in Dares Salaam. Possession of power (TFDA). In September of 2011, there were 200 private retail communities in the region. Out of all of these, Indian pharmacies had 40 pharmacies and 60 total. In the municipalities of India, there are 100 people. a pair a hundred pharmacies were randomly selected. One sample was taken using the balloting method, and the other was taken using the random sampling method. Each pharmacy's dispenser was questioned. To do so, a specially built shape was used. Find out more about the medication dispenser awareness of the negative effects of antimalarial medicines, antimalarial drugs, antimalarial drugs, antimalarial drugs, antimalarial drugs, interactions and dosage according to a child's weight, and antimalarial drugs suggested by the drug dispensing machines in addition to the National Guidelines for Malaria Care. Epi Info was used to analyze the data. The Chi-Square and the version 3.4 of the programme. P-values were used to test the hypothesis. The importance of the analysis variables the outcomes at a significance level of 0.05, the results were considered meaningful. 'The' Sub-questions were weighted equally, with one point for a correct answer and zero for an incorrect response a point is deducted for each incorrect answer. The total number of related questions for assessing information. The car was written off. The totals were split into two groups to get three groups, multiply by three Small, moderate, and high are the three levels of difficulty.

RESULTS AND DISCUSSION:

The socio-demographic characteristics of the 100 paediatric patients and their parents who were enrolled in the study are shown in Table 1.

Table 1: Socio Demographic characteristics of children and their parents

Socio demographic characteristics	Number	Percentage
Age of child (years)		
1	30	30%
2	25	25%
3	25	25%
4	10	10%
5	15	15%
Gender of children		
Males	65	65%
Females	35	35%
Education level of parents		
No formal Education	45	45%
Standard seven	50	50%
Secondary education	5	5%
Age of parents (years)		
20-29	25	25%
30-39	65	65 %
40-49	10	10%

65 % of the 200 children who were prescribed antimalarial drugs were males, while 53% were females. The majority of paediatricians (30%) were under the age of one. The majority of the parents (50%) were between the ages of 30 and 39 years old. In terms of schooling, the majority of parents (50 percent) had completed standard school. The directions provided by prescribers about the use of antimalarial drugs in children at home were moderately understood by about two-thirds of parents (45 percent). The remaining 5% had a limited understanding of the instructions. Just two parents (1%) had a high level of awareness about compassionate treatment, while 69 percent had a moderate level of knowledge and 30% had a low level of knowledge. Older parents, on average, had a higher level of awareness of supportive care interventions

than younger parents ($p < 0.05$). Apart from antimalarial medications, children were also given cotrimoxazole and amoxicillin in this sample. In comparison to results from other studies, the use of antibiotics in this study was significantly lower (4, 15). Antibiotic misuse is often caused by a lack of clarity about the diagnosis, as the clinical picture may not be obvious. Malaria Rapid Diagnostic Tests (MRDT) were recently introduced in Tanzania, and they have significantly improved malaria diagnosis. The current use of MRDT may have led to correct malaria diagnosis and, as a result, low antibiotic use in this study. The most common signs and symptoms of malaria in children, as stated by their parents, are listed in Table 2.

Table 2: Reported signs and symptoms of malaria in pediatrics at public hospitals (n=100)

Signs/symptoms	Number of parents (n)	Frequency (%)
Diarrhoea	20	20%
Vomiting	35	35%
Pallor	40	40%
malaise	3	3%
Fever	2	2%

Children were prescribed cotrimoxazole and amoxicillin in addition to antimalarial drugs in this study. In comparison to other studies, the use of antibiotics in this study was significantly lower. Antibiotic misuse is often caused by a lack of clarity in diagnosis, as the clinical image may not be obvious. Malaria Rapid Diagnostic Tests (MRDTs) have greatly improved malaria diagnosis in Tanzania since their introduction recently. The current use of MRDT may have aided in effective malaria diagnosis and, as a result, low antibiotic use in this study.

CONCLUSION:

This study discovered irrational antimalarial drug dispensing, prescribing, and subsequent improper usage in children. Since Tanzania's anti-malarial drug policy was recently revised, it is recommended that strategies such as creating and disseminating easy-to-follow treatment recommendations, as well as a frequent audit of their implementation, be implemented. In addition, prescribers and medication dispensers should receive ongoing medical and pharmacy education on responsible drug use and evidence-based medicine.

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