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Direct Cost of Severe Malaria Treatment Borne by the Families of Children Aged 0 - 5 Years at the Fana Reference Health Centre, Mali

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Abstract

Introduction: Malaria is both a disease caused by poverty and a cause of poverty. Malaria is the leading cause of morbidity and mortality in Mali and is among the ten countries with the highest number of malaria cases and deaths. The objective was to estimate the direct economic cost borne by families in the treatment of severe malaria in children aged 0 - 5 years at the CSREF in Fana. **Methodology:** The study was cross-sectional, conducted from July 2017 to June 2018 with inclusion criteria and prospective data collection. The methodology was based on estimating the direct economic cost of severe malaria. **Results:** The sample consisted of 109 cases out of a total of 944 hospitalizations; 59% of whom were boys and the 25 - 36 month age group was the most affected. The complications frequently encountered were severe anemia (50 cases) or 45.8%; convulsions (35 cases) or 32.1% and finally severe sepsis (8 cases) or 7.3%. The average direct cost was 25,324 Franc CFA (58.95 US Dollars) of which 66% represented the costs of medicines and consumables against 4% for the consultation. This cost was more than half the minimum wage in Mali. **Conclusion:** Despite the difficulties in estimating the cost in hospitals, the results obtained give us an estimate of the economic burden borne by families in the management of severe malaria cases among children in the district of Fana. Support is needed for parents in the fight against malaria in rural Mali.

Keywords

Severe Malaria, Direct Average Cost, Fana District Health Center, Mali

1. Introduction

Malaria affects the health and wealth of countries and people; the mere presence

of malaria in a community or country is also detrimental to individual and national prosperity because of its influence on social and economic decisions [1]. The World Malaria Report, published in December 2016, recalls that nearly half of the world's population was at risk of contracting malaria in 2015 in 91 countries, with 212 million cases of malaria and 429,000 deaths [2]. In Africa today, it is recognized that malaria is both a disease of poverty and a cause of poverty; annual economic growth in countries with high malaria transmission has always been lower than in malaria-free countries, and economists attribute malaria to an annual growth deficit of up to 1.3% in some African countries [1]. Indeed, it consumes 40% of public health expenditures in Africa and hinders the schooling of children and social development [3]. Malaria is the leading cause of morbidity and mortality in Mali and is among the ten countries with the highest number of malaria cases and deaths (3% of cases and deaths in the world, and 6% of cases in West Africa) [4]. In addition to the human burden, malaria affects the national economy by reducing gross national product (GNP) due to working days lost by working people and hinders children's schooling and social development. According to a study conducted by the National Institute of Research in Public Health (INRSP), the economic losses due to malaria are estimated at 72 billion CFA francs per year. It is thus considered a disease of poverty and a cause of poverty [5]. The direct cost of malaria care covers individual and public expenditure on malaria prevention and treatment. In some highly malarial countries, expenses can account for up to 40% of public health expenditure, 30% - 50% of hospital admissions and up to 50% of outpatient consultations [6]. Fana is a rural area with a poor population whose economy is mainly based on agriculture dependent on the rainy season. In this context, what would be the cost of treating severe malaria? Can this cost affect this fragile family economy? In the absence of data on the cost of managing severe malaria, we set ourselves the objective of estimating the direct economic cost borne by families in the management of severe malaria in children aged 0 to 5 years hospitalized in pediatrics at the Fana Reference Health Center.

2. Material and Method

2.1. Framework

The study took place in the Fana Health District Reference Health Centre in the pediatric unit. The Fana health district was established in 1999 in Koulikoro region (Mali republic). It covers the districts of Béléco, Mena and Fana, divided into 13 rural communes with an area of 7319 km^2. It is currently composed of twenty-two (22) functional health areas; 2 private clinics; 5 private medical practices. The target population estimated in 2020 was 328,801 inhabitants according to the revised General Census of Population and Housing (RGPH 2009 révisé) [7].

2.2. Type and Period

This was a cross-sectional, descriptive study with prospective data collection,

which ran from July 2017 to June 2018.

2.3. Population

The study concerned children aged 0 to 5 years hospitalized and treated for severe malaria in the pediatric unit of the Reference health center of Fana.

2.4. Inclusion Criteria

Were included in this study:

- Children aged 0 to 59 months hospitalized and treated for severe malaria;
- The full availability of justification of expense (consultation and hospitalization ticket, prescription, analysis sheets, restaurant subscription);
- The obtaining informed parental consent.

2.5. Non-Inclusion Criteria: Not Included in This Study

- Cases of evacuation, abandonment or death during care;
- A hospitalization period of less than 24 hours.

2.6. Sampling

The sample size was determined by making a comprehensive sampling based on the inclusion and non-inclusion criteria.

2.7. Data Collection and Analysis Technique

2.7.1. Operationalization of Variables

Variables operationalization table:

Characterization variables	Indicators	Final value	Variable type
Age	Number of months lived	Months	Digital
Sex	Gender	Boy/Girl	Categorical
Severe malaria	Number of cases	Positive Thick Drop or Positive Rapid Diagnostic Test	Categorical
Total Cost (TRQ)	Sum of the weights of the quantities of resources (Qi) used, by their price (Pi): CT = $\Sigma Pi \cdot Qi$	Franc CFA; US Dollars	Digital
Direct Cost (CD)	Sum of the cost of the medical consultation, cost of hospitalization, cost of para-clinical examinations, cost of medications, cost of transporting the patient and the cost of restoration	Franc CFA; US Dollars	Digital
Interest variable	Indicators	Final value	Variable type
Direct Average Cost (MC)	Total cost (CT) of the activity divided by the total number of units of result produced (Q)	Franc CFA/US Dollar	Digital

The methodology used was based on the method of estimating the quantified economic cost of severe malaria.

2.7.2. Data Collection, Processing and Analysis

The survey and collection tools are previously established and tested in order to obtain all the essential information for the study. The data were collected from a pre-established questionnaire administered to the parents or accompanying persons of hospitalized children and primary data sources which are, individual patient records, hospitalization and consultation records, authorizing officers, receipts for payment of consultation and hospitalization, analysis sheets, stock sheets of medicines in the basket, the state of payment restoration. Patient data is entered into a pre-established canvas in the Excel 2013 calculation file with automatic review rules.

Once the data was entered, the processing was done using the Excel calculation file. The method of calculation was based on the methods of estimating the quantified economic cost of severe malaria.

2.8. Ethical Considerations

An authorization has been submitted and approved by the health officials of the Fana Health District. A document in which the objectives, purpose and confidentiality of the study are narrated, was presented or explained verbally to each participant in order to obtain informed consent. The observation of anonymity in the dissemination of results guarantees professional secrecy.

3. Result

3.1. Epidemiological and Clinical Aspects

3.1.1. Distribution of Cases by Age Groups and Sex

The most affected age group was 25 - 36 months and the number of cases was identical in both sexes (16 cases). The least affected age group was 0 - 6 months also in both sexes. The total number of cases was higher in male than in female (**Figure 1**).

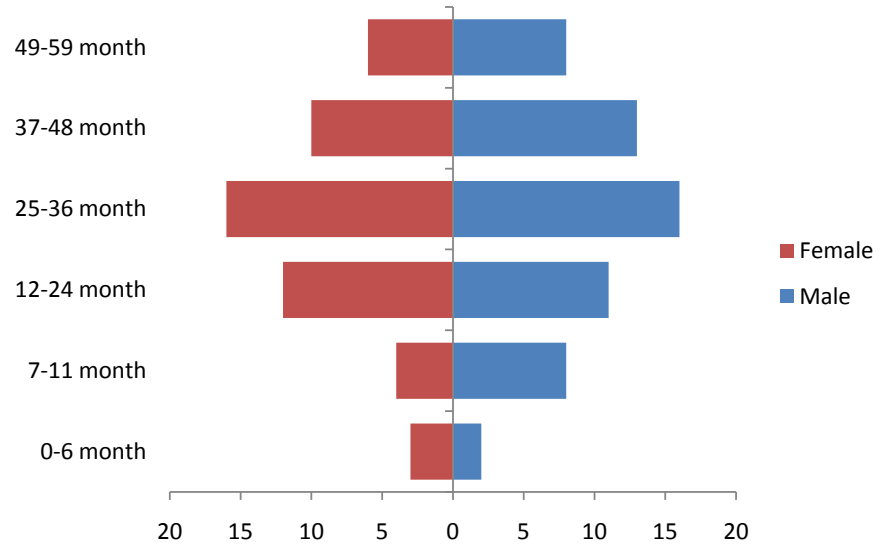

Figure 1. The age pyramid of severe malaria cases in 0 - 5 years old.

3.1.2. Distribution of Cases by Complications of Severe Malaria

The complications frequently encountered were severe anemia (50 cases) or 45.8%; convulsions (35 cases) or 32.1% and finally severe sepsis (8 cases) or 7.3% (Table 1).

3.1.3. Distribution of Cases by Length of Hospital Stay

According to the length of stay, 60 children stayed for 3 days, 29 children 5 days and 20 children stayed more than 5 days in the health center hospitalized for severe malaria (Figure 2).

3.1.4. Distribution of Cases by Means of Transport Used

The means of transport used to transport sick children were motorcycles, 87% of cases, public transport 8% of cases and 2% of cases were transported by ambulance (Figure 3).

3.2. Estimated Economic Cost of Care

3.2.1. The Cost of Medicines and Consumables (C.M)

The total cost (TC) of medical drugs and consumables was 1,808,440 Franc CFA. This amount corresponds to the management of the 109 cases of severe malaria (Table 2).

3.2.2. The Total Direct Cost (TRQ) of Para-Clinical Analyses in Case Management

The total cost of para-clinical analyses was 354,950 Franc CFA for the 109 cases of severe malaria. The main analyses were: hemoglobin (136,720 Franc CFA), blood grouping (109,000 Franc CFA), blood glucose (109,000 Franc CFA) and thick drop (10,200 Franc CFA). Rapid diagnosis Test (RDTs) are carried out to all sick children and its supply is provided by the center free of charge. This represented an average direct cost of 3256 Franc CFA per child (Table 3).

3.2.3. The Cost of Transporting Sick Children

The total cost for the transport of the children from their home to the CSRéf de Fana, round trip was 312,500 Franc CFA (Table 4). This sum corresponded according to the means of transport, 89.4% for motorcycle transport, 6.4% for ambulance transport and 4.1% for public transport respectively. For the 2 cases transported by ambulance, the cost of their return is not included in the total cost as well as for the 3 cases that used other means of transport.

Table 1. Distribution of cases by complications of severe malaria.

COMPLICATIONS	NUMBER OF CASES	RATE
Convulsion	35	32.1
Severe sepsis	8	7.3
Severe anemia	50	45.8
Others	16	14.8
Total	109	100

Sources: Patient Records.

Table 2. Total direct cost (TRQ) of drugs and consumables in case management.

Medicine/consumable	Unit cost Franc CFA (B)	Total number (A)	Total cost Franc CFA (A*B)
Ceftriaxone 1 g	600	401	240,600
Paracetamol perf	2220	146	324,120
Artemeter Injectable 20 mg	3030	2	6060
Glucose Serum 10% (500 ml)	720	189	136,080
Ringer Lactate	552	53	29,256
Furosemide injection 20 mg	120	60	7200
Dexamethasone Injection 4 mg	96	105	10,080
Metronidazole infusion	828	8	6624
24G catheter	340	336	114,240
Plaster 1/4	250	109	27,250
Syringe 10 ml	70	1184	82,880
Infuser	265	222	58,830
B-complex (injectable)	228	190	43,320
Diazepam Injection 20 mg	200	79	15,800
Amoxicillin 250 mg syrup	750	109	77,760
Paracetamol syrup	420	109	45,360
Depakine syrup	4700	13	61,700
Gardenal 40 mg	1020	8	8160
Iron multivitamin syrup	966	109	104,328
Albendazole syrup	624	109	66,768
Transfusion Kit	6000	56	336,000
Total			1,808,440

Sources: Patient prescriptions; stock sheets DV CSREF FANA, transfusion register.

Table 3. The direct cost of para-clinical analyses.

Indication	Number of tests (A)	Unit amount (B)	Total Cost (Franc CFA) A*B
Hemoglobin levels	169	750	126,750
Groupage/Rhesus	109	1000	109,000
Glycemia	109	1000	109,000
Drop Thickness	17	600	10,200
Tdr	109	0	0
	Total		354,950

Sources: Analysis sheets, patient medical record.

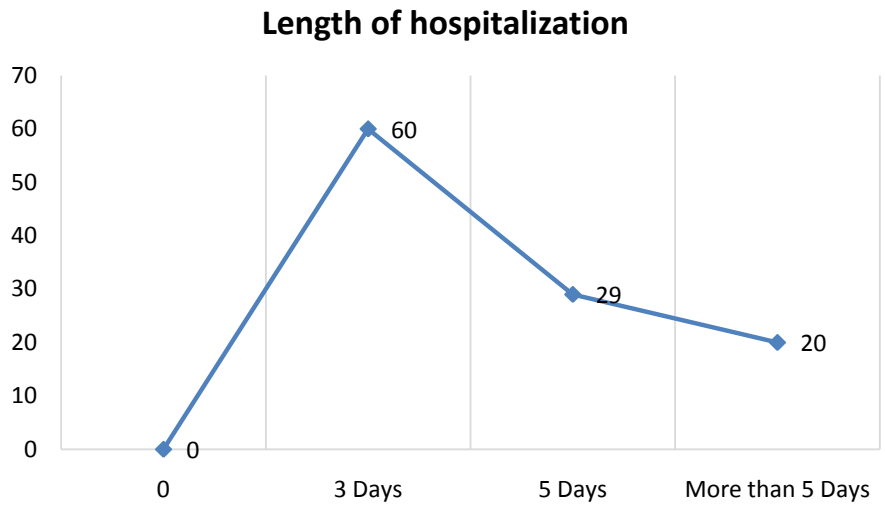

Figure 2. Average length of stay.

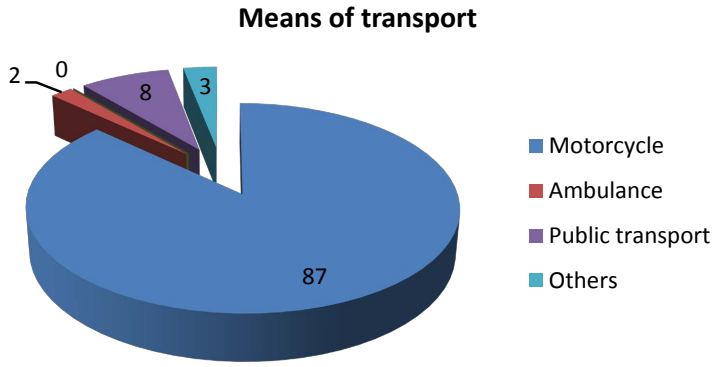

Figure 3. Breakdown by means of transport. Sources: Fact Sheets.

Table 4. The total direct cost (TRQ) of transporting sick children.

Means of transport	Number	Amount (Franc CFA)	Percentage
Motorcycle	95	279,500	89.4
Public transportation	8	13,000	4.1
Ambulance	2	20,000	6.4
Other	4	-	-
Total amount		312,500	100

Sources: Fact sheets.

3.2.4. The Average Direct Cost (CD) Borne by the Family in the Management of Severe Malaria Cases at the CSRéf de Fana

The average direct cost of managing hospitalization for severe malaria was 25,324 Franc CFA. This sum was distributed as follows: 1000 Franc CFA for consultation, 1500 Franc CFA for hospitalization, 3256 Franc CFA for paramedical analysis and 2976 Franc CFA for transport. Taking into account the exemption from the cost of consultation and hospitalization for children under 5 years of age, the average direct cost is 22,824 Franc CFA (Table 5).

Table 5. The average direct cost of malaria care per hospitalized child attributable to patients.

Act	Total Cost (TB)	Number (*Qi*)	Average Direct Cost (Franc CFA) CT/*Qi*	Proportion (%)
Consultation*	109,000	109	1000	4
Hospitalization*	163,500	109	1500	6
Paramedical analysis	354,950	109	3256	13
Medicaments	1,808,440	109	16,591	66
Transport	312,500	105	2976	12
Total			25,324	100

Sources: Survey databases; NB: *cost exempted by the CSRéf de Fana.

3.2.5. Distribution of the Direct Average Cost According to the Different Activities

The proportion of the costs was as follows, 65% for the cost of medicines, 13% for the cost of paramedical analyzes, 12% for transport; 6% and 4% successively for hospitalization and consultation (**Figure 4**).

4. Discussions

4.1. In Relation to Epidemiological and Clinical Data

Children from 0 to 5 years old are part of the vulnerable population to malaria. In this study, the results showed that out of a total of 944 hospitalized cases (SLIS Fana) [8], 109 cases were included of which the most affected age group was 25 - 36 months or 3 years (**Figure 1**). This result is similar to the results of the study conducted by KAWELE Bouzoum [6] which showed a high number in children aged 3 years. Precisely at this age, the child begins to be no longer dependent on his mother but is not able to protect himself against mosquito bites. Due to the inattention of the parents, the disease is detected late. Even if the reality of trans-placental infection of the newborn is admitted, linked to the passage of parasitized red blood cells from the placenta congenital malaria-disease is rare. It appears after a variable delay of 5 to 60 days and the constant clinical sign is fever (Pierre Aubry *et al.*) [2]. The boys were the most exposed with a sex ratio of 1.4 to girls. The same result was obtained in a study conducted in the pediatric department of the Befelatanana Hospital in Antananarivo among children under 5 years old (Raobijaona H. *et al.* and by KAWELE Bouzoum) [6] [9]. This would show a vulnerability of boys compared to girls. The main complications were severe anemia (46%), convulsion (32%) and severe sepsis (7%). The most frequent and serious complications of *P. falciparum* infection in children are neuromalaria, severe anemia, respiratory distress (acidosis) and hypoglycemia (WHO Practical Guide 2013) [10].

4.2. In Relation to the Economic Costs of Managing Severe Malaria

The results of the Malaria Indicator Survey [5] showed that the economic well-

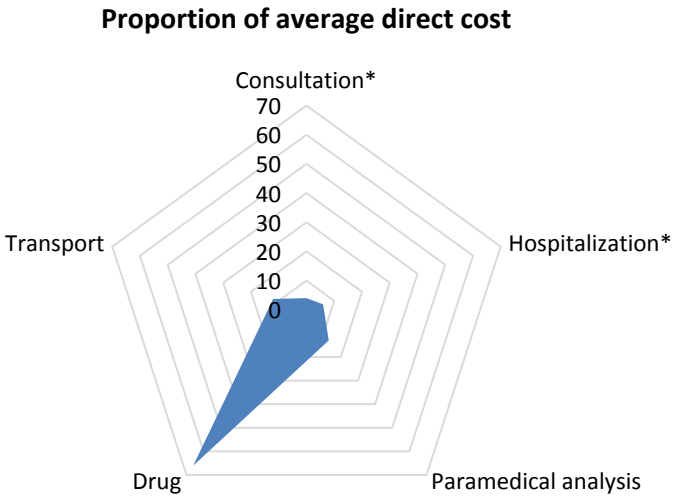

Figure 4. Proportion of average direct cost burden for patients.

being index in rural areas is only 4%. The peak of malaria is reached during the winter season and this coincides with the lean season in rural areas, complicating the economic situation of families. In order to standardize the management of malaria, the reference documents were the Malian policies, standards and procedures (PNP-Malaria) [11] and the WHO 3rd edition practical guide. The three protocols for the management of severe malaria are based on the treatment with injectable quinine, injectable artesunate and intra-muscular artéméther. Thus, it was agreed to respect the medical prescription as much as possible towards the essential drugs (INN), as well as the indication of paramedical analyses to the strict necessary. The results of the study (**Table 5**) showed that the average direct cost of treating severe malaria in the pediatric ward of the CSRéf of Fana was 25,324 Franc CFA (58.9558 US Dollars) [12]. The costs of the consultation, hospitalization and rapid diagnostic test (RDT) were covered by the health center, so the average direct cost borne by patients is 22,824 Franc CFA or 53 US Dollars. This cost was lower than that of KAWELE Bouzoum conducted in Togo in 2013, which found an average direct cost of 55,215 Franc CFA (99.7256 US Dollars). It should be noted that the costs of transportation and catering were not included in the latter. Also, the cost of medical consultation 1000 Franc CFA (1.8061 US Dollars) and hospitalization 1500 Franc CFA (2.7092 US Dollars) are paid only once per hospitalization at the Fana pediatric hospital. Studies conducted in Côte d'Ivoire by G.L.S Couitchéré *et al.* [13] and Oshwa B. Mbalabu in DRC [14] found an average direct cost of 20,251 Franc CFA (36.5760 US Dollars) and 21,713 Franc CFA (39.2165 US Dollars) respectively. These amounts were lower than those obtained in our study. This can be explained by the fact that the cost of restoration was not taken into account in the study by G.L.S Couitchéré *et al.* and the cost of transport and restoration in the study by Oshwa B. Mbalabu in DRC.

A study on the cost evaluation of the treatment of severe malaria by M. Mtalimanja *et al.* [15] in Zambia revealed that the cost of the cure with artesunate

was 65.6 US Dollars. Also the cost-effectiveness study by Y. Lubell *et al.* [16] showed a similar result with 66.5 US Dollars for artesunate versus 61.4 US Dollars for quinine. The drugs used and the care provided differed between the protocols. For example, the treatment with injectable quinine requires the use of glucose serum, infusion set and other adjuvant drugs in addition to close care of 4 hours of follow-up and risks of death are related to the incorrect use of this molecule (one in four deaths) [17]. While artesunate does not require the use of other drugs or long-term care; it is simple to administer and reduces the risk of hypoglycemic episodes during treatment by 45%, making it an economical treatment and, therefore, its use in the management of severe malaria in children is considered to have greater monetary benefits [18]. Thus the costs differ even though we did not take this into account in the calculation of the average cost.

Estimating the economic cost of severe malaria management is very complex and the context of a sick relative in hospital makes it difficult to interview parents. The estimated average cost of management of severe malaria in this study is more than half of the minimum wages in Mali (40,000 Franc CFA as of 2016) [19]. The study took place in a rural community whose main economic activity is agriculture dependent on the rainy season. So this estimate gives us some idea of the burden of managing severe malaria in children aged 0 - 5 years on the economy of the family.

5. Conclusion

The result obtained in this study gives us an estimate of the economic burden borne by families in the management of severe malaria cases in children in Fana district. So this estimate gives us some ideas of the burden of managing severe malaria in children aged 0 - 5 years on the economy of families. Support is needed for parents in the fight against malaria in rural Mali.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] https://www.malariaconsortium.org/userfiles/file/Malaria%20resources/RBM%20Economic%20costs%20of%20malaria.pdf

[2] Aubry, P. and Gaüzère, B.-A. (2016) Paludisme. Médecine Tropicale.

[3] Toungara, K., *et al.* (2020) Contribution to Improving the Quality of Malaria Care at the Sanankoroba Community Health Center in the Health District of Kalabancoro, Mali. *Mali Sante Publique*, **10**, 2-34. https://doi.org/10.53318/msp.v10i02.1794

[4] https://www.severemalaria.org/fr/pays/mali

[5] Rapport d'enquête sur les indicateurs de santé au Mali (EIPM 2015) 3-4.

[6] Bouzoum, K. (2014) Analyse des coûts de traitement et de la prévention du paludisme grave chez les enfants de moins de 5 ans au centre hospitalier universitaire Sylvanus Olimpio de Lomé-Togo 2013-2014.

[7] Système local d'information sanitaire du district sanitaire de Fana. RGPH 2020 révisé.

[8] Système local d'information sanitaire du district sanitaire de Fana (SLIS Fana). Canevas Programme Palu 2017.

[9] Raobijaona, H., Randrianotahina, C.H. and Razanamparany, M. (2000) Le paludisme grave de l'enfant observé au service pédiatrie du centre hospitalier Befetanana à Antananarivo.

[10] Guide pratique OMS 2013. La prise en charge du paludisme grave 3ème édition: 7-8; 15-18; 23.

[11] Directives nationales pour la prise en charge des cas de paludisme au Mali. Juin 2016-8-13.

[12] Capital, cours Dollar americain/Franc CFA-BCEAO.

[13] Couitchéré, G.L.S., *et al.* (2005) Évaluation des coûts directs de la prise en charge du paludisme grave de l'enfant à l'hôpital général de Bonoua, Côte d'Ivoire. *Archives de Pédiatrie*, **12**, 332. https://www.em-consulte.com/en/article/29604 https://doi.org/10.1016/j.arcped.2004.12.009

[14] Mbalabu, O.B., *et al.* (2015) Coût direct de prise en charge et profil clinique du paludisme sévère à l'hôpital pédiatrique de Mbuji Mayi, en République Démocratique du Congo. *Journées Scientifiques de Lutte contre le Paludisme*, **9**. http://www.anafrimed.net/cout-direct-de-prise-charge-profil-clinique-paludisme-severe-a-lhopital-pediatrique-de-mbuji-mayi-republique-democratique-congo-direct-cost-of-management-and-clinical-pro

[15] Mtalimanja, M., Abasse, K.S., Mtalimanja, J.L., *et al.* (2022) Economic Evaluation of Severe Malaria in Children under 14 Years in Zambia. *Cost Effectiveness and Resource Allocation*, **20**, 4. https://doi.org/10.1186/s12962-022-00340-9

[16] Lubell, Y., Yeung, S., Dondorp, A.M., *et al.* (2009) Cost-Effectiveness of Artesunate for the Treatment of Severe Malaria. *Tropical Medicine & International Health*, **14**, 332-337. https://doi.org/10.1111/j.1365-3156.2009.02227.x

[17] Mehta, Z., *et al.* (2007) Malaria Deaths as Sentinel Events to Monitor Healthcare Delivery and Antimalarial Drug Safety. *Tropical Medicine & International Health*, **12**, 617-628. https://doi.org/10.1111/j.1365-3156.2007.01823.x

[18] Sinclair, D., *et al.* (2012) Artesunate versus Quinine for Treating Severe Malaria. *Cochrane Database of Systematic Reviews*, No. 6, CD005967. https://doi.org/10.1002/14651858.CD005967.pub4

[19] Revalorisation du SMIG: Le salaire minimum au Mali est fixé à 40 000 F cfa depuis janvier 2016. https://investirmali.com/revalorisation-du-smig-le-salaire-minimum-au-mali-est-fixe-a-40-000-f-cfa-depuis-janvier-2016

Appendix

Questionnaire:

Health District of Fana

Direct cost of severe malaria treatment borne by the families of children aged 0 - 5 years at the Fana Reference Health Centre

Questionnaire n˚1

I. Sorting sheet:

1.1. Date of tri: yy/mm/dd

1.2. Time of tri: ___h/____mn

1.3. Name: _____

1.4. Age: ____ months

1.5. Sex: male/female

1.6. Address: _____

1.7. Claims:

1.8. Temperature: ___˚C

1.9. Weight: ____ kg

1.10. Height: _____ cm

1.11. Brachial circumference: ____ cm

1.12. Z-score _____

1.13. Pulse rate: ____ beats/minute

1.14. Breathing rate: _____ /minute

1.15. Rapid Diagnostic Test: positive/negative

1.16. Conjunctival paleness: −/+ ++ +++

Questionnaire n˚2

II. Patient identification:

2.1. Case Id:

2.2. Patient's name:

2.3. Age: _____ (month)

2.4. Sex: Male ( )/Female ( )

2.5. Address:

2.6. Siblings: _____/_____

2.7. Marital status of parents: Married ( ) Single ( ) Divorced ( )

2.8. Name of the health area:

Number of accompanying persons	Parental bond (father, mother, uncle, brother, aunt, sister, neighbour ….)	Age	Job

3. Clinical information:

3.1. Diagnosis:

3.2. Date of hospitalization: year/month/day

3.3. Time: ___ h ___ mn

3.4. Evolution: healed ( ) referred/evacuated ( ) deceased ( )

3.5. Length of hospitalization: _____ day(s)

4. Transportation and food information:

4.1. Means of transport: Motorbike ( ); Ambulance ( ); Public transport ( ); Personal car ( ); Others to be specified ( )

4.2. Food support: Yes/No

4.3. Financing fund: Own ( ) Collective ( ) others to be specified ()

5. Analyzes carried out

5.1. Complete Blood Count ( )

5.2. Thick Drop and Thin Smear ( )

5.3. Hemoglobin level ( )

5.4. Group/Rhesus ( )

5.5. Others to be specified ( )

6. Treatment protocol:

6.1. Artesunate

6.2. Quinine infusion

6.3. Arthemeter

7. Drugs and consumables:

Drug and consumables (to be mentioned)	Quantity	Unit Cost (Franc CFA)	Total Cost (Franc CFA)
Total			

8. Acts and services:

Act and services (to be mentioned)	Quantity	Unit Cost	Total cost
Intensive care unit			
Blood transfusion kit			
Hospitalisation			
Consultation			
Restauration			

Continued

Total	

Investigator

Date: _____YY_____MM_____DD