

Reasons for Emergency Consultations in the Paediatric Department of the Reference Health Centre in Commune II of the District of Bamako (MALI)

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Abstract: Introduction: The reason for consultation is the basis of medical reasoning, its understanding is fundamental to avoid diagnostic errors. The objective of this study was to determine the frequency of emergency consultations among children aged 2 months to 15 years in the paediatric department of the health centre of the commune II of Bamako. **Patients and methods:** This was a retrospective, descriptive study from 1 January to 31 December 2017. We included all children aged 2 months to 15 years who were consulted in emergency at the paediatric department. Data were collected from medical records and consultation registers on survey forms. Some variables (socio-demographic and clinical) were retained for analysis. **Results:** In our study, 254 patients aged 2 to 15 years were included. Children under 5 years of age were the most represented 82.67% and those aged 11-15 years the least represented 3.54%. Males were the most represented with 59.44% M/F sex ratio of 1.46. Parents of children residing in commune II at the time of the consultation were in the majority (74.81%). Parents came directly with their children in 83.85% and had a reference in 16.14%. The reasons for consultation were dominated by fever (50%), followed by respiratory difficulties (16.53%) and convulsions (14.17%). Consultations for fever, breathing difficulties and convulsions were more frequent in October with respectively: 23.62%; 26.19%; 22%.

Keywords: Reasons, Consultation, Emergency, Paediatrics, Bamako, Commune II.

INTRODUCTION

The reason for consultation is the basis of medical reasoning, and understanding it is fundamental to avoiding diagnostic errors. It is what bothers the patient; it is the complaint that prompts the patient or the patient's parents in the case of children to come and consult the health worker. (Antoine et al 2019) According to the Larousse Medical, a paediatric emergency is a pathological situation involving children who require immediate care on pain of serious consequences for their health or even their lives (Larousse Médical). Some variations are seasonal and predictable in relation to winter epidemics and school holidays (Grimpel E and Begue P, 2013). In France, at

the Le Havre hospital group, the reasons for consultation were dominated by trauma (34.4%), fever (14.5%), digestive and respiratory disorders. (P. Poitou et al 2010) In Morocco in 2018, a study found that respiratory problems accounted for 28.6%, digestive problems for 27.6%, ENT problems for 12% and neurological problems for 6.4% of cases. Fever was associated with the reasons for consultation in 29.2% (A. Laaraje and al 2018).

A study done in Brazzaville found fever to be the dominant reason for consultation during the day and at night 75%, 76.8%. (Mabiala-Babela JR and Senga P, 2009) In Mali, according to the annual report of the

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Gabriel Toure University Hospital, the number of emergency room visits in 2015 was 34,202 new paediatric consultations, i.e. 43.09% in paediatric emergencies, in 2016, 32,134 paediatric consultations, i.e. (44.10%) in paediatric emergencies (2015-2016 activity report). In 2019, in the department of paediatrics, fever was the main reason for consultation 36%, followed by convulsions 23% (Doumbia AK and al, 2016). Knowledge of the prevalence of these reasons for consultation is extremely important, not only for the implementation of prevention strategies, but also for effective actions to control the disease. The objective of this study was to determine the frequency of emergency consultations among children aged between 2 months and 15 years in the paediatric department of the reference health centre of the commune II of Bamako (CSRéf).

PATIENTS AND METHODS

This study was conducted in commune II of the district of Bamako, Mali. Commune II covers an area of 17 km², i.e. \approx 7% of the total area of the Bamako district 267 Km². It is divided into 9 health areas, 1 CSRéf, 8 community health centres (CSCoM). Mali's health sector policy is based on a pyramid structure, the first level of which is the Community Health Centre (CSCoM), the second level is the Reference Health Centre (CSRéf) and the third and fourth levels are the regional and national hospitals respectively. The reference health centre of commune II is the first reference health structure of the commune. The paediatric service consists of: 1 consultation room, 2

hospitalization rooms and 1 neonatology unit. Triage is done systematically and emergency consultations are done in the outpatient department, often directly in the hospital wards. Emergency care is provided by the paediatricians and the day team.

This was a retrospective, descriptive study from 1 January to 31 December 2017. We included all children aged between 2 months and 15 years who were seen in the emergency department of the paediatric ward. Data were collected from medical records and consultation registers on survey forms. The variables selected were: age, sex, origin, mode of admission, socioeconomic level, educational level of the mothers, consultation time, reason for consultation, length of hospital stay. The data were entered and analysed on IBM SPSS Statistics software version 20 and processed on Word 2007 and Excel 2007.

RESULTS

Out of 15035 consultations of children aged 2 to 15 years in the paediatric department we recorded 254 consultations in emergencies, i.e. a frequency of 1.64%, the age group of 2 to 11 months was the most represented, i.e. 45.27%, and that of 11 to 15 years the least represented 3.54%. Males were the most represented at 59.44%, M/F sex ratio of 1.46. The parents of the children lived outside commune II at the time of the consultation in 25.19% of cases and the socio-economic conditions were low in 80% of the families. The children's mothers were educated to primary level in 76.37% of cases (Table 1).

Table 1: Distribution socio-economic characteristics according to

Variable	Workeforce	Percentage
Age		
2-11 months	115	45,27
12 - 59 months	95	37,4
6 - 10 years	35	13,77
11 - 15 years	9	3,54
Gender		
Male	151	59,44
Female	103	40,55
Residence		
Commune II	190	74,8
Out of town Ilher	64	25,19
Schooling for the mother		
Yes	194	76,37
No	41	16,14

In our study 70.86% of the patients consulted after 2 days of disease progression and 3.93% consulted immediately. Parents came directly with the children in 83.85% and had a referral in 16.14%. The reasons for consultation were dominated by fever (50%), followed by respiratory difficulties (16.53%) and convulsions

(14.17%). (Figure 1) Consultations for fever were more frequent in October 23.62% followed by breathing difficulties 26.19% and convulsions 22%. (Figure 2) On the other hand, pallor was more frequent in November. In our series, all patients were hospitalised and 51.57% had 3 to 6 days of hospitalisation.

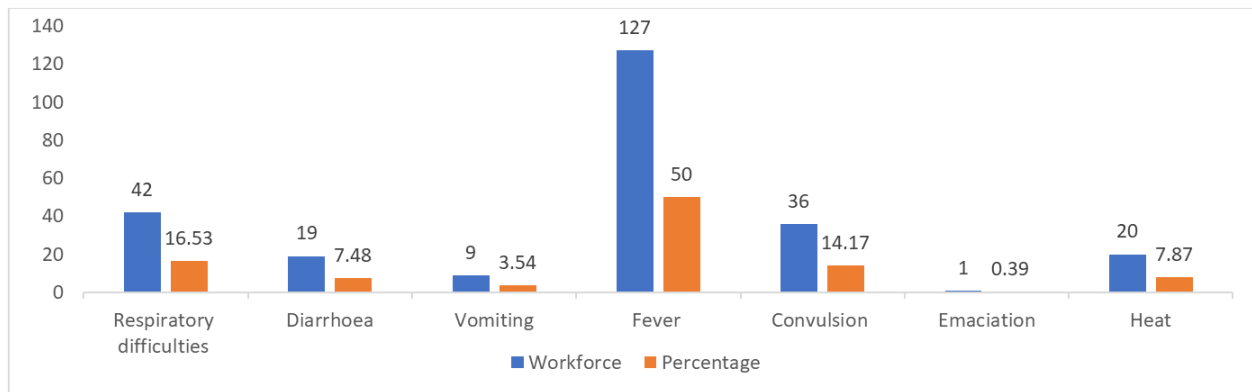


Figure 1: Reasons for consultation

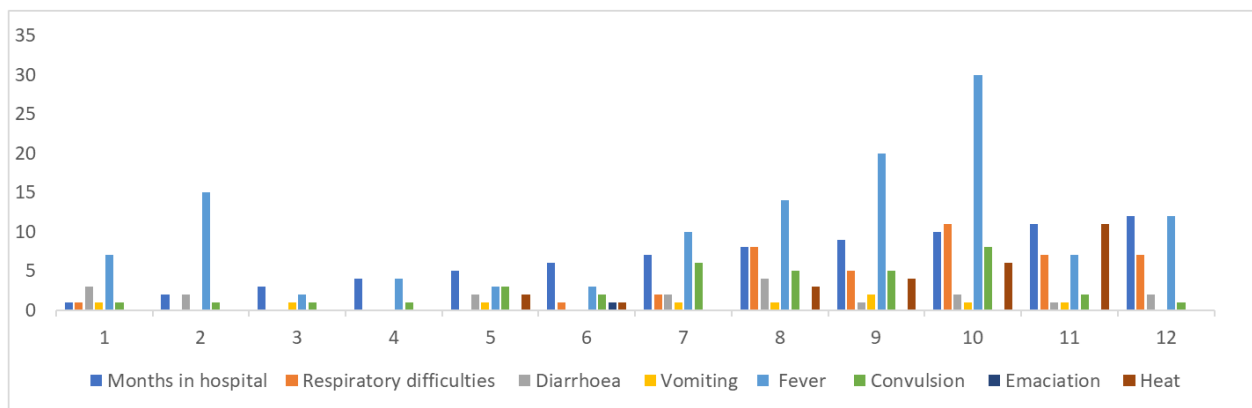


Figure 2: Reasons for consultation according to the months of the year

DISCUSSION

During the period of our study, 15035 children aged between 2 months and 15 years were consulted in paediatrics, 254 of whom were seen in emergencies, a frequency of 1.63%. The frequency of emergency consultations in our study was much lower than that of (Nzame Y et al 2020) in Libreville (26.7%) and (Mabiala-Babela et al 2009) in Congo Brazzaville (45.7%), a situation that could be explained by the status of the study centre, which is an intermediate centre between community structures and referral hospitals. The CSRéf refers fairly critical patients to in our study, children under 5 years of age were the most frequent visitors to the 3rd level hospitals and often parents prefer to bring their sick children directly to the 3rd level facilities.

In our study, children under 5 years of age were the most frequent 82.67%. This majority age group of under 5 years was found by (Nzame Y and al 2020) 71.1% as well as by (TRAORE IY and al 2013) 79.6%. This situation could be explained by the fragility and immaturity of the immune system at this age which would expose it more to infectious agents (Abdoulaye BT and al 2017). The majority of patients were male (59.44%). This same trend was found by (Abdoulaye BT and al 2017) 60.1% and (Tobie-Gueguen M-J 2012) 55.4%. In our series, the vast majority of the patients' parents resided in commune II, the commune of the study centre, i.e. 74.81% against 25.19% outside the

commune. Our result is similar to that of (Antoine Marie TRAORE 2019 et al) who found 16.9% of residence outside his study commune. This situation could be explained by the difficulty of compliance with the health pyramid in Mali by patients. In our study, 70.86% of the patients consulted between 1 and 2 days after the onset of the disease.

Our result is superior to that of (Nzame Y and al 2020) who found a delay in seeking care of 1 to 2 days in 26.2% of patients. On the other hand, (Tobie-Gueguen M-J and al 2012) and (Leduc N and al 2001) found a delay in seeking care of 24 hours, i.e. 55.5% and 40.1% respectively. This situation could be explained by the late recourse to care in our context, probably in relation to the low socio-economic level of the parents. The parents came directly without a referral form with the children in 83.85% and had a referral in 16.14%. Our result is lower than that of (Abdoulaye BT et al 2017) who received 30% of referred patients. All the referral came from CSCom (community health centre). This situation could be explained by the fact that CHU Gabriel TOURE is the third and last referral centre for children in Mali. In our study, the reasons for consultation were dominated by fever (50%), followed by respiratory difficulties (16.53%) and convulsions (14.17%). Our result is identical to that of (Abdoulaye BT and al 2017) who found as reasons for emergency consultation: fever 33.9% followed by cough/breathing difficulty 13.94% and convulsion 3%. Just like in

(Mabiala-Babela and al 2009), (Kuakivi NK and al 2004) and (Nzame Y and al 2020) who found fever as the first reason for consultation respectively 75%, 50%, 70.3%. This could be explained by the high frequency of infectious diseases, especially malaria. (EDSM VI, 2018). The majority of emergency room consultations for fever, respiratory difficulties and convulsions were in October, i.e. 23.62%, 26.19% and 22% respectively. This situation could be explained by the fact that the month of October corresponds to the winter period, which is the high transmission period for malaria in Mali. In our series, all patients were hospitalised. Our result is different from those of (Abdoulaye BT and al 2017) in Bamako, (Ferme D and al 2014) in Angers who hospitalised respectively 46.6% and 14.4% of emergency room consultations. This could be explained by the study centre status and the rigour in triage.

CONCLUSION

Emergency consultations at the level of the reference health centre of commune II of the district of Bamako are dominated by: Fever, respiratory difficulties and convulsions. The knowledge of the reasons and their periodicity of occurrence allow an improvement of the quality of patient care by the health workers and a better planning by the district authorities.

Conflicts of interest: none

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