

Medical Visit Activity in Mfoundi Division: Extend and Effect on Medical and Pharmaceutical Practice

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Abstract

This research focuses on problem related to medical visit in the Mfoundi Division. It is aimed at measuring the extent and effect of the medical visit in medical and pharmaceutical practice in Yaoundé. A mixed, quantitative and qualitative study with descriptive and analytical goals was conducted. It involved a survey carried out over a period of five (5) months from August 1st, 2023 to January 31, 2024 in health facilities of the seven Yaoundé sub-divisions. Data was collected using a questionnaire (either online or physically) self-administered to 464 medical doctors (students, general practitioners, residents or specialists) met in consultation services and an interview guide administered to 12 community and hospital pharmacists. The data obtained was subject to manual and computer processing using SPSS 21, STATA 16 and Excell software. Results revealed that 36.2% of respondents received medical sales representatives (MSR) every day, 62.5% granted an interview to 5 or 10 MSR per week and almost all laid emphasis on the information of their products, on new products and the advantages of the product compared to competing products. The vast majority of respondents believed that relations with MSR were good, and 96.3% found that the medical visit was favorable to their activity. 92.3% of participants admitted to have changed their prescribing habits after the visit of a medical representative and 82.4% of their colleagues saw their prescriptions changed after an interview with a MSR.

Key words: *Effect, Medical Visit, Medical and Pharmaceutical Practice, Mfoundi.*

Introduction

Background

The World Health Organization (WHO) defines medical promotion as any information and persuasive action achieved by pharmaceutical manufacturers and distributors to induce prescription, supply, purchase and/or use of a drug [1]. Article L. 5122-1 of the French Public Health Code brings medical

promotion closer to drug advertising and considers it as “any form of information, including canvassing, prospecting or incitement which aims to promote the prescription, administration, sale or consumption of these drugs, excluding information provided, within the framework of their duties, by pharmacists managing a pharmacy for indoor use” [2].

The industry therefore employs several strategies, namely: general public advertisement, newspapers, magazines, medical visits, etc., to warrant the correct and safe use of drugs [3]. Medical visit is one of the choicest toll used by pharmaceutical companies to provide scientific and commercial information to health professionals (HP) [4].

Laboratories allocate huge budgets to pharmaceutical promotion, and medical visits make up a significant part of their investment [5]. In fact, 20.4 billion dollars were spent on medical visits in the USA in 2004. This amount of money represents 35% of the budget allocated to promotional activities [6]. In France, a report from the General Inspectorate of Social Affairs (IGAS) in 2007 highlighted that 3 billion euros were spent on pharmaceutical promotion and 25 kilos euros/general practitioner were made available for medical visits [7]. In most pharmaceutical companies, the sales department represents more than 40% of human resources [6].

The medical visit activity is carried out by the medical visitor or medical delegate or therapeutic informant whose role is to promote laboratory products to health professionals so they may prescribe them [8].

Nowadays, numerous studies have shown that interactions between medical representatives and POS are very beneficial, especially for information on new products [9, 10]. Other studies highlighted the ethical dimension of these interactions with the possibility of better exploitation [9, 11] and the possibility of restricting contacts between HP and medical visitors [12, 13]. On the other hand, some raise ambiguity on both the form and the content of the discussions, which has led to deviations with significant consequences in certain cases. This can be illustrated by the scandal linked to MEDIATOR® (Benfluorex), a cholesterol-lowering drug whose contraindicated use has led to serious side

effects of pulmonary arterial hypertension [14]. The controversy over GARDASIL® (vaccine against cervix cancer) still current in Europe, with high risk of neurological damage especially multiple sclerosis [15] and the approved culpability of Abbott laboratories over DEPAKOTE®, a drug used in case of agitation and aggressiveness in senile dementia and schizophrenia patients, although the US Food and Drug Administration (FDA) had not yet approved it.

In France and the United States, there is a document, which governs the regulation of pharmaceutical promotion [11]. In most African countries there is no law governing the relationship between health professionals and medical representatives [16] and very little work have been carried out on these contradictory issues. Studies carried out respectively in Ouagadougou and Brazzaville on the quality of information handouts provided by the MSR have shown certain deviations in the practice of the medical visit on one hand and the dissimilarity between the data provided and summarized characteristics of reference products on the other hand [17, 18]. Similar results were obtained from Mellouli et al. who demonstrated that doctors in the Sousse Region (Tunisia) changed their prescriptions after the visit of medical representatives [19].

Objective of the Study

In Cameroon, a national association, which brings together the medical visitors of Cameroon (NAMVC), with regional representations for massive involvement of the actors of this corporation, has been founded in the past years. But, today there is no real text which regulates the relationships between MSR and HP, making the objectivity of this daily activity and its influence on the therapeutic choices of HP questionable. Moreover, there is little or no literature on both the medical visits issues and potential

relationships with HP. This study thus aims to show that medical visit influences the activity of HP in Yaoundé, by raising two fold problems, which includes; the purpose and limits in the practicing this profession which involves both medical and pharmaceutical professionals. Specific objectives include; measuring the extent of medical visit activity in medical and pharmaceutical practice, evaluating the quality of relationship existing between MSR and doctors/pharmacists, describing the effect of the medical visit in the medical and pharmaceutical practice in Yaoundé.

Materials and Methods

Study Design

A cross-sectional study with a descriptive and analytical aim, using a mixed approach (quantitative and qualitative) was used. Data collection took place from August 1, 2023 to January 31, 2024 in the Mfoundi division, which consists of seven districts of the Yaoundé town. With a growth rate of 3.45%, Yaoundé, the political capital of Cameroon, has a population estimated at 4,100,000 inhabitants in 2020 with an average density of 13.486 inhabitants per square kilometer [20]. For a workforce of approximately 2878 doctors approved by the Cameroon Medical Council (CMC), the Central Region host more than 20%, out of which 80% are concentrated in the city of Yaoundé [21].

This finding consisted in visiting structures in both the public and private sectors throughout the investigation, ranked from the 1st to the 5th category of health facilities. Most of these structures issued a research authorization. These structures include; Yaoundé General Hospital (HGY), Yaoundé University Hospital Center (CHUY), Yaoundé Central Hospital (HCY), Chantal Biya Foundation (FCB), Olembé, Cité Verte, Nkoldongo, Mvog Ada, Efoulan District

Hospitals (HD), Mendong District Medical Center (CMA), Mother and Child Deo Gratias Hospital Center, Gyneco-Obstetrics Residents and Interns Association (ARIGOC), Residents in Internal Medicine Association (ARMIS). Furthermore, several other private structures were visited without prior authorization issued by the health facility but through a simple presentation of the ethics clearance.

Study Population

The population studied for the quantitative approach included doctors, 6th year medical students and medical residents working in Mfoundi Division. For the qualitative approach, some private pharmacists in the city of Yaoundé were visited.

Methodology

The sampling method used for the quantitative approach was non-probabilistic and the sample size was calculated using the following Lorentz formula.

$n = z^2 \times p(1 - p) / m^2$, with n = sample size, z = confidence interval according to the reduced centered normal distribution (for a confidence level of 95%, $z = 1.96$), p = estimated proportion of the population which presents characteristic, the greatest dispersion was considered at 50% ($p = 0.5$), m = tolerated error margin (considered within 5%).

This formula permitted the determination of the number of doctors to question according to the error margin m that can be tolerated on a proportion of p responses.

$n = (1.96)^2 \times (0.5)(1-0.5) / (0.05)^2 = 384.16$.

This result was increased to 21%, resulting in a sample size of 464. For the qualitative approach, the sampling method was by convenience and the sample was reached from the saturation point.

To carry out this study, the quantitative approach used consisted of:

- an electronic questionnaire of 36 questions proposed to doctors working in Mfoundi Division health facilities.

- a physical questionnaire given directly to those doctors who had problems connecting for online assessment.

This pre-tested questionnaire consisted mainly of closed questions giving room to the breakdown of socio-professional data of respondents, to assess their knowledge of pharmaceutical promotion methods, to estimate the nature of their relationship with medical representatives and their perception of the influence of the medical visit.

For the qualitative approach, an interview guide was used containing 7 questions which made permitted the assessment of the medical visit from pharmacists prism and the evaluation of their position with respect to the effect of this activity on their practice in pharmacy.

All methods and techniques used complied with the requirements of health science research ethics. After a brief presentation of the researcher and research objectives, individual interviews were carried out during direct contact with.

pharmacists. It involved letting the informant express himself freely and fully on the subject using items in the interview guide and this was recorded using the telephone tape recorder. However, to ease question understanding, poorly understood questions were rephrased. The notion of informed

consent and confidentiality were highlighted to legally assert key information and thereby warrant anonymity respect.

Data Processing and Analysis

Data collected by the quantitative approach were compiled and analyzed using three software programs, SPSS 21, STATA 16 and Excel. The first software eased the sorting of variables, recode them, perform bivariate analyses and data transfer to STATA. Excel permitted table presentation and graph plotting. For the qualitative approach, content analysis was carried out using Word software, in the form of tables, grouping together similarities and differences in the respondents' comments concerning each of the themes addressed. This technique was chosen due to the small sample size.

Results

Quantitative Results

Characteristics of the Study Population

Table 1 shows that the survey sample was made up of women mainly (63.1%), singles (52.8%) and general practitioners (56.1%). Most were public sector workers (70%) and the majority had less than 5 years' experience (47%). All Yaoundé districts participated in the survey but Yaoundé 3 district had the greatest representation (26%) (Figure 1). Furthermore, the vast majority was aged 25 and 34, (61.5%) (Figure 2).

Table 1. Characteristics of the Study Population

Characteristics of the Studied Population	Number (N = 464)	Percentage (P = 100%)
Sex		
Male	170	36.7
Female	293	63.1
ND ¹	01	0.2
Marital Status		
Single	244	52.6

¹ND: Not declared

Seperate/Divorced	04	0.9
Free Union	45	9.7
Married	165	35.5
Widow/Widower	04	0.9
ND	02	0.4
Profession		
Medical student	47	10.1
General practitioner doctor	260	56.1
Specialist	80	17.2
Resident	76	16.4
ND	01	0.2
Number of Years of Service		
11 to 15 years	38	8.2
5 to 10 years	171	36.8
Less than 5 years	219	47.3
More than 15 years	35	7.5
ND	01	0.2
Activity Sector		
Retired	1	0.2
Private sector	138	29.8
Public sector	324	69.8
ND	01	0.2

Source: Researcher's Field Survey, 2023



Figure 1. Distribution of the Study Population with Respect to Subdivision

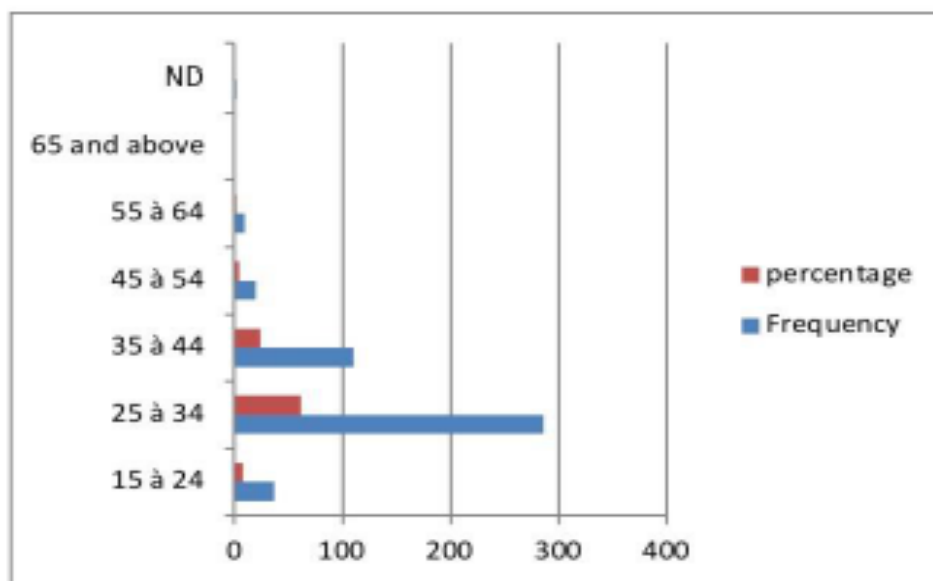


Figure 2. Distribution of the Study Population with Respect to Age

Measurement of Medical Visit Activity Extend

Almost all respondents received medical visitors (99.6%) and only 11% encountered all the pharmaceutical promotion strategies evaluated (medical visit, EMG, free meals, EPU or IMG, PEC congresses, pharmaceutical advertisement).

Most respondents received medical visitors 1 to 2 days per week (47.6%) and 36.2% received them every day. Globally, 5 to 10 MSR were received per week (62.5%) and 98% of them laid emphasis on their products' information of new products and their advantages compared to competing ones during their interviews (Table 2).

Table 2. Extend of Medical Visits in the Target Population

	Number (N = 464)	Percentage (P = 100%)
Do You Often Receive MSR in Your Office?		
Yes	462	99.6
No	01	0.2
ND	01	0.2
What Is Your Weekly Schedule of MSR Reception?		
1 to 2 per week	221	47.6
3 to 4 per week	48	10.3
5 to 6 per week	5	1.0
By prior appointment	21	4.6
Everyday	168	36.2
ND	1	0.2
Number of MSR's Visits Per Week		
Less than 5	46	9.9
Between 5 and 10	290	62.5
Between 10 and 15	75	16.2

Between 15 and 20	39	8.4
Between 20 and 25	8	1.7
Between 25 and 30	2	0.5
Greater than 30	3	0.6
ND	1	0.2

Source: Researcher Field Survey, 2023

Evaluation of Doctors' Work Conditions and their Relationship with MSR

Most doctors surveyed found that the work conditions of health professionals were bad

(78.8%) and were not at all satisfied with the doctor's condition (81.9%). Furthermore, 82.7% believe their relationship with MSR is good while only 1.72% consider them poor (Table 3).

Table 3. Work Condition of Medical Doctors with Respect to Medical Visits

	Number (N = 464)	Percentage (P = 100%)
How do you Appreciate Cameroonian Health Professional's Work Conditions?		
Bad	366	78.8
Quite good	79	17.1
Good	15	3.3
Very good	3	0.6
ND	1	0.2
What is Your Degree of Satisfaction as a Medical Doctor?		
Not at all satisfied	380	81.9
Quite satisfied	73	15.8
Satisfied	7	1.5
Very satisfied	3	0.6
ND	1	0.2
How do You Rate Your Relationship With MSR?		
Good	384	82.7
Very good	72	15.5
Bad	08	1.72

Interest and Effect of the Medical Visit Activity

Table 4 reveals that most of respondents found that the medical visit is favorable to their daily work (96.3%). The acknowledge to have

changed their prescription habits after the visit of a MSR (92.3%) and that 81.7% of their colleagues saw their prescription habits changing after the passage of the MSR.

Table 4. Effect of Medical Visits on Prescription Habits

	Number (N = 464)	Percentage (P = 100%)
Do you Think Medical Visits are Favourable for Your Daily Work?		
No	16	3.5
Yes	447	96.3
ND	1	0.2

Have you Ever Changed Your Prescription Habits After a MSR Visit?		
No	35	7.5
Yes	428	92.3
ND	1	0.2
Do you Think that Your Colleagues' Prescription Habits are Affected By MSR Visits?		
No	84	18.1
Yes	379	81.7
ND	1	0.2

Qualitative Results

Characteristics of the Study Population

Out of 12 pharmacists interviewed, we got 3 women and 9 men. These interviews were carried out in their workplaces within community pharmacies. Four of the respondents were tenured and the other eight were assistants. 50% were married; the average age and year of experience were 35.9 and 9.7 respectively.

Knowledge of Means of Pharmaceutical Promotion

Amongst all strategies used by the pharmaceutical industry, most respondents acknowledged the medical visit, EPU and IMG, free meals, free medical samples:

"I meet medical representatives almost every day, and they are the ones who regularly request us to participate when there are symposia like Post graduate education and others, medical samples are well known even though labs are more rational in providing them." (PH3).

This speech is held by many of the respondents. Some add to this advertising via newspapers, the internet and especially television:

"I have often seen products like EFFERALGAN and CaC1000 advertised on TV during certain sporting events, but I think it concerns OTC products much more" (PH1).

However, interviews clearly revealed that the most frequently encountered means for pharmaceutical promotion are medical visits and symposia (Post graduate education, Group

Medical Informations, Staff, etc.) as this respondent point out:

"The reception hours for medical representatives in my pharmacy are from Monday to Friday, from 10 a.m. to 4 p.m., so it's obvious that I receive MSRs more regularly based on my schedule so that we can exchange. They therefore regularly contact me when there are scientific meetings." (PH6).

Importance of the Medical Visit Activity

Exchanges between MSR and pharmacists are very beneficial. Aspects covered are usually, the recall or information on the commercial name of the product, its dosage, its indication, its galenic form, its dosage and possibly if a promotion is in progress. With difficulty, the pharmacological aspects – pharmacodynamics, pharmacokinetics – were addressed as mentioned by this informant (PH6):

"The passage of medical representatives helps us so much. The little reminder they give us helps prevent certain products from lying around on shelves, especially if they are advisory products. Also, the auxiliaries do not have very sustained training at the base, by working with them, they seize the opportunity to train and this improves their performance. They provide a great support since as a pharmacist; our job does not still allow us to devote a lot of time for continuous training of our pharmacy teams. Furthermore, we still note that medical sale representatives skim over or completely avoid aspects such as adverse effects, pharmacodynamics, pharmacokinetics which are very important

when we have to recommend a product. This aspect is often a problem.”

However, some respondents still agree to emphasize that we meet MSR which stand out for the richness of scientific interviews they hold with pharmacists, provided a real added value to the product they present and generating a strong impact on the health professionals (HP) as reported by the following respondent (PH11):

“There are MSR that I won't mention the name or the product here, who really make a difference during their visit, perhaps because of their background or because they take their work seriously. They demonstrate a good mastery of all the scientific information that they develop and this with verifiable references, they are hardly short of arguments. They are really convincing to the point where you yourself are proud to talk with them.”

Influence of the Medical Visit Activity

The increase in visits made by the MSR generates very close links with the HP which, beyond the close proximity, evolve into a friendly relationship. This has a very significant influence for most of them on the nature of their relationship, thereby impacting the HP view on this MSR and its products. This is best described by one of the informants (PH9) in these terms:

“Initially our relationships were professional. But based on visit frequency and the way a medical representative works, we may have to speak informally and develop a friendly relationship. It doesn't happen with everyone. If it is a MRS who does his job correctly, who is courteous and who makes a good impression with the pharmacy teams, who in negotiation is objective, rated and demonstrates active listening. It's clear that we will trust him more compared to someone who just remains focused on his own sales objectives without taking into account the difficulties mentioned by the pharmacist.”

Almost unanimously, informants responses made it possible to understand that the influence of the medical visit on the capacity of a HP to stock or advise a medication is beyond any doubt. The little touches developed by the MSR during these visits (gadgets, free samples, meals, etc.) greatly contributed to marking the pharmacy team and creating a special relationship with the structure. Anything that before the pharmacy manager, offers very favorable signals for good collaboration consequent improvement in business performance. One respondent confirms this in these terms:

“We unwittingly recommending a product as we think of a medical representative who left a good impression during his visit, his actions, his attention at the pharmacy level. But ultimately we measure all the awareness of decisions to advise this or that product or to order and store this or that quantity, it would be unfair to say that the medical visit does not influence these decisions” (PH2).

Discussion

Measurement of Medical Visit Activity Extend

This finding shows that medical visit is the main strategy used by pharmaceutical companies for information on products (99.6%) and only 11% encountered all the evaluated strategies (medical visit, free sample, free meals, Post graduate education or GMI, support for congress etc). This demonstrates the importance of this activity in the daily training HP, and the interest that of the pharmaceutical industry in it. These results are similar to those obtained in France by the IGAS in 2007 [22] and the HAS in 2009 [23] which revealed that the medical visit was a source of information for 56%, followed by Vidal and the medical press. This discloses that despite scandals attributed to manufacturers [14, 24] and all reforms that affected the medical visit sector in Europe [25, 26], medical visit activity maintains a place of

choice in the therapeutic information of HP. However, Pittet and *al.* (2015) findings, deviates greatly from these results by revealing that the main sources of medical information in Switzerland are respectively congresses (41%), guidelines (38%), colleagues (37%) and experts (33%) [27].

This survey revealed that 98% of MSR emphasized information about their products, new products and product benefits versus the competition. Adverse effects and drug interactions are sporadically recalled. These results are in agreement with those published in France by IGAS in 2007 [22] where for 70 % of contraindications cases, precautions for use or adverse effects were not spontaneously mentioned by MSRs. Ben Abdelaziz and *al.* (2002) survey revealed that medical representatives did not mention drug interactions, adverse effects and contraindications for 23%, 32% and 36% respectively. Although slightly different, these results reflect the phenomenon observed by the journal "Prescrire" [28] which found that contraindications (23%), adverse effects (27%) and drug interactions [20] were not mentioned during visit interviews.

All these results sufficiently reflect objectives pursued by manufacturers who put forward communication strategies aimed at promoting performance in terms of prescriptions and therefore product sales rather than drawing attention to the conditions for proper use of the drug, which is determinant for patients well-being.

Evaluation of Doctors Working Conditions and their Relationship with Medical Sale Representatives

Most surveyed doctors found that the working conditions of health professionals was poor (78.8%) and were not at all satisfied with the medical doctor's condition (81.9%). These results are similar to those of Karemere B. (2013) findings who demonstrated that the main reason for dissatisfaction among the

Katana health professionals, in the Democratic Republic of Congo was low salaries. This condition therefore exposed them to poor practices such as preying upon patients, theft of inputs, etc. [29]. Rowe Ak. (2005) reinforced this feeling by demonstrating that failure to consider staff complains demotivates them and renders their performance poor [30]. Moreover, Khomeiran RT and *al.* (2006) [31] underlined in his study that one of the complaints justifying the dissatisfaction of HP is the non-valuation of the work carried out by them, which undermines their efforts and affects their enthusiasm for work.

Furthermore, 82.7% believe that relations with MSR are good while only 1.72% consider them poor (Table 3). Demets S. findings in 2010 [32] reveals that 67% of doctors claim to maintain good relationships with medical representatives though they are remaining cautious over this means of medical information. At the same time, Bras and *al.* (2007) discovered that many doctors maintain good relationships with MSR because they were friendly, valued them, allowed them to be socially recognized and above all to take a "break" between two consultations [33]. All these results demonstrate the fact that despite the questioning of the communication strategy developed by the medical representative and all the caution that the MSR demonstrate, the relationships between these two professions remain globally good.

Interest and Effect of the Medical Visit Activity

In this study most respondents found that the medical visit is favorable to their daily work (96.3%). This is similar to results gotten by Radig P. (2008) who demonstrated that 78.9% of doctors found medical visits favorable because it renews knowledge, provides interesting information on new products, facilitates recall of old drugs characteristics [34]. On the other hand, results obtained are better than those of Al-Areefi MA

and *al.* (2013), who observed that 60.3% of doctors agreed with medical visits, in a study conducted in Yemen [35].

In addition, our informants admitted to have changed their prescribing habits after the passage of a MSR (92.3%) and 81.7% of their colleagues saw their prescription habits being modified after the passage of the MSR. These results are similar to those found by Sangho and *al.* (2018) in Mali where 83.3% of HP recognized the effect of MSR activity on their prescription habits [36]. On the other hand, they are higher than those of Lieb and Scheurich (2014) in Germany [37] and Workneh and *al.* (2016) in Ethiopia [38] with 42% and 48.2% of HP who declared that they were influenced in their prescriptions by interviews with pharmaceutical representatives. Furthermore, results of this study are contradictory with those of Baron S. and *al.* (2012) who showed that 70.6% and 58.7% of doctors asserted that their prescribing habits were not influenced by medical visit [39]. The “illusion of invulnerability to persuasion” [40] allows us to better understand the attitude of doctors who declare that they are not influenced by medical visit. This concept developed by psychologists states that many prospects believe that only others are vulnerable to advertising while themselves are not, they are resistant. The illusory argument on which they base themselves is the fact that they assume to be “intelligent” because they attended high level studies. However, neither intelligence nor academic level can limit promotional strategy influence, rather both

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standards are taken into consideration while defining the target [41].

Conclusion

This study reveals that medical visit remains a key means of therapeutic information for health professionals in the Mfoundi division. Despite the biases mentioned during interviews with doctors, the relationship between MSR and HP remains quite good. However, the vast majority of respondents recognize that interviews with medical representatives influence their therapeutic decisions. The establishment of a regulatory framework that takes into consideration expectations of health professionals and pharmaceutical industries offers would be important to preserve the rationality of the prescriptions to be put forward by the HP.

Acknowledgements

Glory be to God, the Almighty, the most merciful for giving us opportunity, courage and strenght to carry out and to complete this project.

We would also like to express our gratitude to Prof Julienne Ngo Likeng (for the review of this article), Prof Dohbit Sama, Prof. Carole Njiomouo Langa (University of Maroua-Cameroon), Dr Samira Ahmadou, Dr Baane, Dr Herve Ngatanko, for their contribution and hard work

Conflict of Interest

Autors declare that they have no affiliation with or involvement in any organization or entity with any financial interest in the subject matter.

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