

A Study on Prevalence of Hypertension and Challenges of High Cost of Medications in General Out Patient Department (GOPD) FMC, a Tertiary Care Medical Centre, at Lokoja, North Central Nigeria

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ARTICLE INFO

Article history:

Received 3 February 2018

Received in revised form 4 August 2018

Accepted 21 August 2018

Available online 10 September 2018

ABSTRACT

Hypertension is the driver of the CVD epidemic in Africa where it is a major, independent risk factor for heart failure, and stroke and kidney failure. In order to mitigate the high cost of medications in Nigeria, government initiated National Health Insurance Scheme (NHIS) in 2005. This study investigated the rate of hypertension among Nigerians, the influence of NHIS on patients accessing hospital for medical care and the availability and affordability of antihypertensive medications. An analytical study was conducted on all prescriptions emanated from GOPD over six-month. A total number of 8,166 prescriptions were analyzed and the same number determined. 78 % of the total prescriptions contained no anti-hypertensive drugs while 22 % contained one or more anti-hypertensive drugs. 62 % of the total prescriptions were on NHIS whereas 38 % were non-NHIS, indicated that majority of the patients visited GOPD are NHIS enrollees. 20 % of NHIS prescriptions contained anti-hypertensive, while the remaining 80 % were non anti-hypertensive. Whereas, 78 % of all anti-hypertensive prescriptions were on NHIS while 22 % were non-NHIS, this shown that majority of antihypertensive prescriptions were NHIS enrollees. This suggested that people under NHIS sought medical care in the hospital than non NHIS. Only 37 % hypertensive patients on NHIS got all their drugs at the supposed 10 % price, whereas, 51 % of the hypertensive patients on NHIS got only part but not all their drugs at 10% price, 12 % got none of their drugs at 10 % price. Majority of the hypertensive patients under NHIS did not get their prescribed drugs. However, 62 % of antihypertensive prescriptions on non-NHIS got all their drugs available, 34 % of non-NHIS antihypertensive prescriptions had part of their medications but not all available at the hospital while only 4 % non-NHIS antihypertensive prescriptions had none of their medications available. There was a high cases of hypertension discovered at GOPD and a majority of NHIS patients visited hospital for medical services than non NHIS. More non NHIS patients have more of their drugs available than NHIS patients. There should be more attention towards non-communicable diseases like hypertension and increase accessibility to drugs. Government should also make NHIS more attractive by increase enrollee's satisfactions.

Keywords:

Hypertension, prescription, National Health Insurance Scheme (NHIS), drugs

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1. Introduction

Cardiovascular disease (CVD) is the leading cause of death in developing countries where it causes nearly as many deaths as HIV, malaria and tuberculosis [1,2]. Presently, the age specific mortality rates from CVDs are much higher in younger age groups in both men and women in Africa than in the developed world [3]. CVD is the second leading overall cause of death in Africa, after HIV/AIDS, and is the leading cause of mortality among individuals over the age of thirty [4]. The World Health Organisation (WHO) projects that over the next ten years Africa will experience the largest increase in death rates from CVD and therefore the negative economic impact of CVD will be more felt on the continent [5].

Hypertension is the driver of the CVD epidemic in Africa where it is a major, independent risk factor for heart failure, and stroke and kidney failure [6]. The management of these complications is difficult to sustain in sub-Saharan countries where resource-intensive care is not very feasible. Insufficient diagnosis of hypertension and suboptimal blood pressure control in the diagnosed patients increases morbidity and mortality with an increased burden to health care resources [7]. Until recently, hypertension was mainly associated with more affluent regions of the world. However, the condition is increasingly emerging in low and middle-income countries (LMICs) [8,9] where health resources are scarce and stretched by a high burden of infectious diseases such as HIV, malaria and tuberculosis, and where awareness and treatment levels on hypertension control are still very low [9]. Currently, the worldwide burden of hypertension is greatest in LMICs where it affects about 1 in every 5 of the adult population and this is projected to increase [10]. By 2025, almost 3 out of every 4 people with hypertension will be living in LMICs. High blood pressure is estimated to have caused 7.6 million premature deaths (13.5% of the total) and contributed 92 million disability adjusted life years (DALYs) worldwide in 2001 [11]. In the year 2000, non-optimal blood pressure was estimated to have caused approximately 7.1 million deaths (12.8% of the total) and contributed 64.3 million DALYs [12]. It has been suggested that the prevalence of cardiovascular disease and hypertension is increasing rapidly in sub-Saharan Africa (SSA) [13]. The current prevalence in many developing countries, particularly in urban societies, is said to be already as high as those seen in developed countries [14,15]. SSA is currently battling with communicable diseases such as malaria and HIV, and most governments in the region have limited resources and health budgets. An increasing burden of hypertension in this region is therefore likely to be of grave consequence because very few people will get treated and control is likely to be low [16]. In SSA especially in Nigeria, emphasis is mostly on communicable diseases such as HIV/AIDS, Tuberculosis, Malaria, etc. and patients in this category usually benefit immense subsidy from various Government and non-Government Organization (NGO) interventions. Whereas, non-communicable diseases such as high blood pressure is usually treated with little or no concern. Therefore, the prevention and control of non-communicable diseases such as hypertension are rarely on the agenda of countries in the region. Thus, the condition is largely under detected and under-treated due to ignorance and poverty. Complications are often common and severe leading to chronic disability and premature mortality [17].

The prescription includes not only the name of a patient but also includes, the date on which the prescription is written and some other information such as: general physical examination, systemic examination, needful investigations, provisional diagnosis and/or final diagnosis and lists of prescribed medicines [18].

This study focuses on raises the awareness of all stake holders to the alarming increase rate of high blood pressure among Nigerians, the impeding dangers of neglect of non-communicable diseases, in view of ensuring increasing in the coverage of national health insurance scheme (NHIS) among Nigerians, accommodating all essential drugs necessary in the management of high blood

pressure under NHIS and ensuring availability and accessibility of anti-hypertensive drugs for the populace.

2. Methodology

This study was an analysis survey of all prescriptions received from the patients over six months period from 11th March, 2015 to 27th September, 2015.

The inclusion criteria were: patient's prescriptions from GOPD, both genders, patients agree to give consent to participate in the study. The exclusion criteria were prescriptions from other departments, the referred cases from outside, uncooperative patients, unwilling to participate in the study and patients denying consent [18].

The layout of the prescriptions was assessed on the basis of the following details: total prescriptions collated, total prescriptions with antihypertensive drugs, total prescriptions without antihypertensive drugs, prescriptions with anti-hypertensive and anti-diabetics drugs, prescriptions with anti-hypertensive and drugs for other conditions, National Health Insurance Scheme (NHIS) prescriptions, non NHIS prescriptions, NHIS prescriptions with antihypertensive, non NHIS prescriptions with antihypertensive, hypertensive Patients on NHIS that got all their drugs at 10%, hypertensive Patients on NHIS that only got some but not all their drugs at 10%, hypertensive patients on NHIS that got none of their drugs at 10%, non NHIS hypertensive patients that got all their drugs at 100%, non NHIS hypertensive patients that got some of their drugs available, and non NHIS hypertensive patients that got none of their drugs at the hospital pharmacy. The results were statistically analysed by the use of Microsoft Excel 2010[®] and graphically represented.

3. Results

3.1 Data Collections

Ethical clearance was taken from Hospital Review and Ethical Committee of FMC. The total Prescriptions (percentage) were 100.

A total of 8,166 prescriptions (which represent 100% of the total prescriptions) were analysed within the period of six months, 6,393 prescriptions represented 78.3% of the total prescriptions were prescriptions without any anti-hypertensive drugs and 1,773 represented 21.7% of the total prescriptions contained one or more anti-hypertensive drugs (Fig. 1).

Out of the total prescriptions, 757 which represent 9.3% of the total contained anti-hypertensive drugs only, 305 represents 3.7% of the total prescriptions contained both anti-hypertensive and anti-diabetics drugs and 711 represents 8.7% of the total prescriptions contained anti-hypertensive and drugs for others conditions (Fig. 2).

Of all the total prescriptions collated, 5,061 represents 61.98% of the total prescriptions were on NHIS prescription whereas, 3,105 represents 38.02% of the total were non-NHIS as show in (Fig. 3). Of all 5,061 NHIS prescriptions, 986 i.e. 19.5% of NHIS prescriptions contained anti-hypertensive, while the remaining 4,075 i.e. 80.5% were non anti-hypertensive (Fig. 4).

Out of 1,264 of all prescriptions that contain one or more anti-hypertensive drugs, 986 represented 78% of all anti-hypertensive prescriptions were NHIS while 278 represents 22% were non-NHIS (Fig. 5).

Only 369 represents 37.4% of 986 hypertensive patients on NHIS got all their drugs at the supposed 10%, whereas, 507 represents 51.4% of the hypertensive patients on NHIS got only some but not all their drugs at 10%, while 110 patients on NHIS represents 11.2% got none of their drugs at 10% as shown on Fig. 6 below.

On the other hands, 173 represents 62.2% of all 278 hypertensive prescriptions on non-NHIS got all their drugs available, 93 represents 33.5% of non-NHIS hypertensive prescriptions had some of their medications but not all available at the hospital while only 12 non-NHIS hypertensive prescriptions represents 4.3% had none of their medications available at the hospital (Fig. 7).

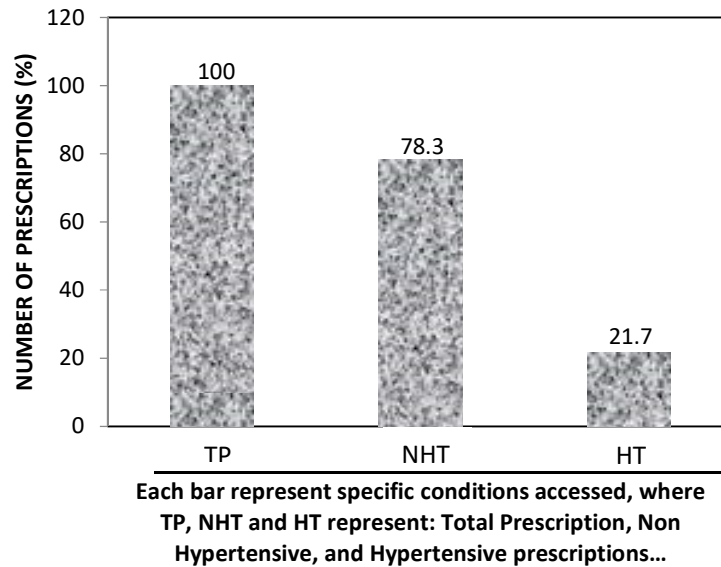


Fig. 1. Number of prescriptions

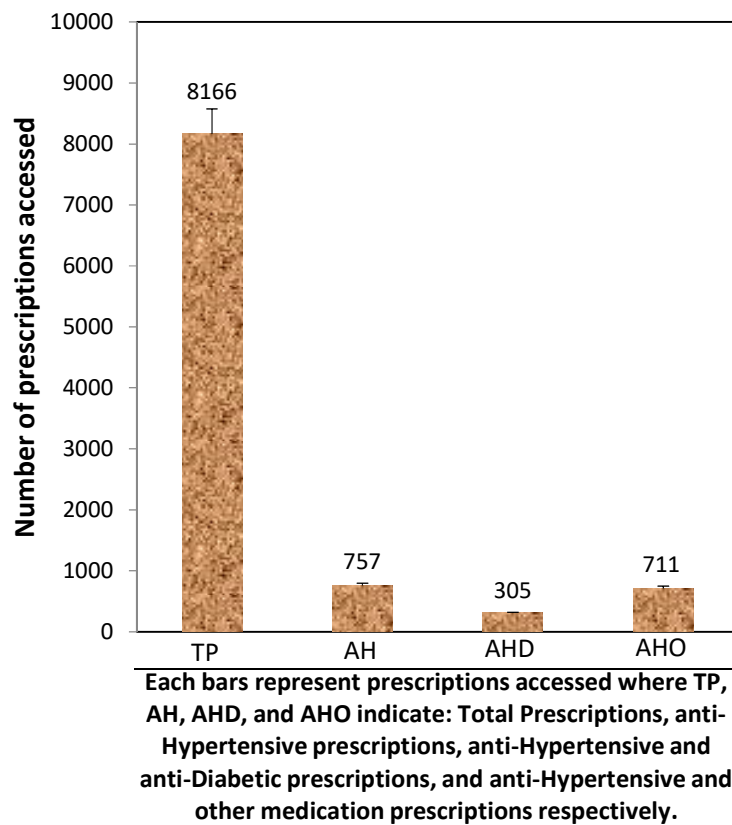


Fig. 2. Total number of prescription accessed

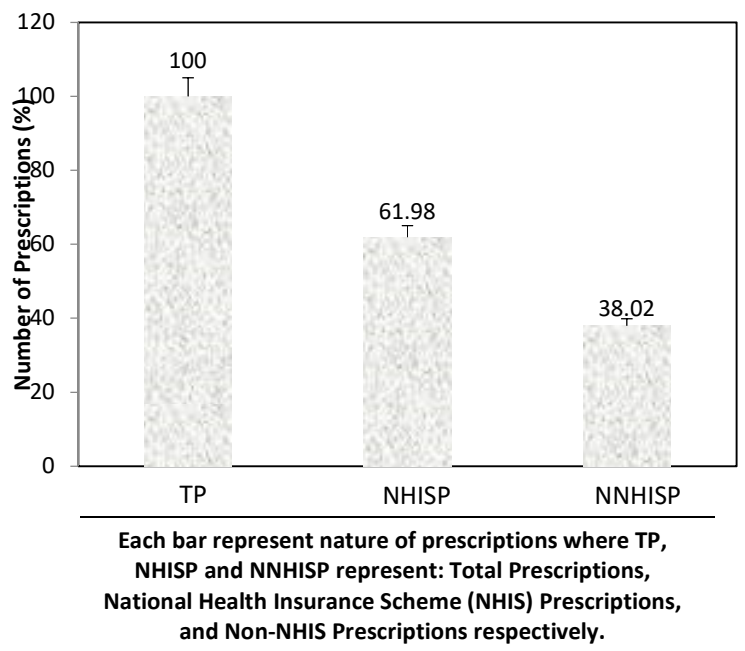


Fig. 3. Percentage number of prescription

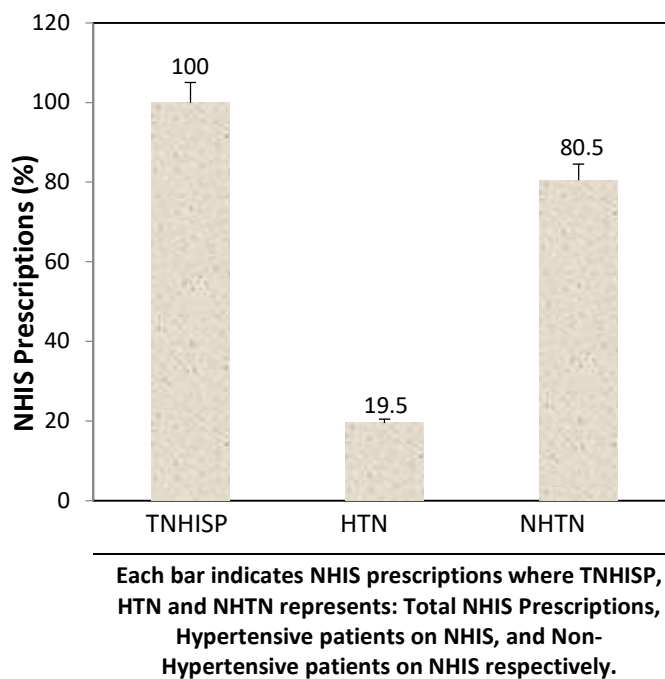
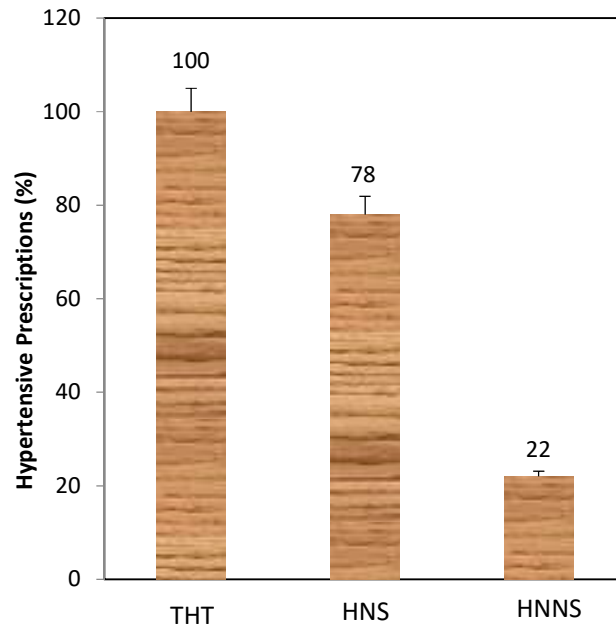
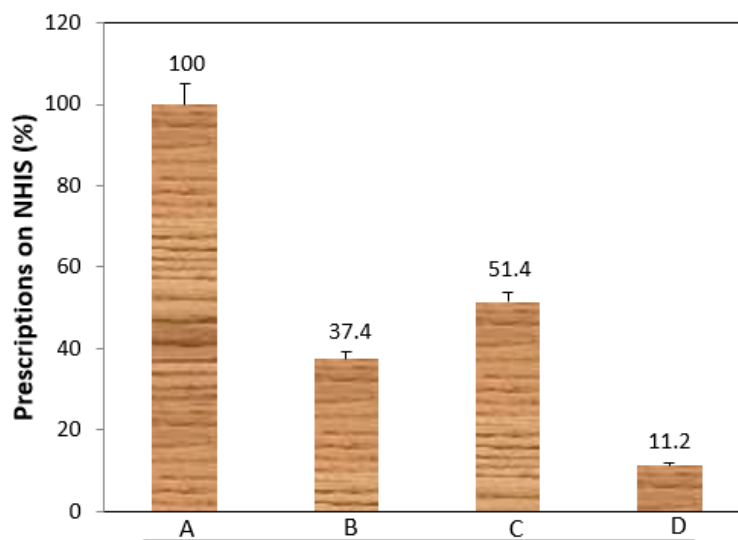


Fig. 4. NHIS prescriptions



Each bar represent hypertensive prescriptions where THT, HNS and HNNS signifies: Total Hypertensive Prescriptions, Hypertensive Prescriptions on NHIS, and Hypertensive Prescriptions on Non-NHIS respectively.

Fig. 5. Hypertensive prescription



Each bar represents anti-hypertensive prescriptions on NHIS where A,B,C, and D represent; Total anti-hypertensive prescriptions, patients on NHIS and got all their drugs at 10%, patients on NHIS and got part of their drugs but not all at 10%, and NHIS pat

Fig. 6. Prescriptions of NHIS

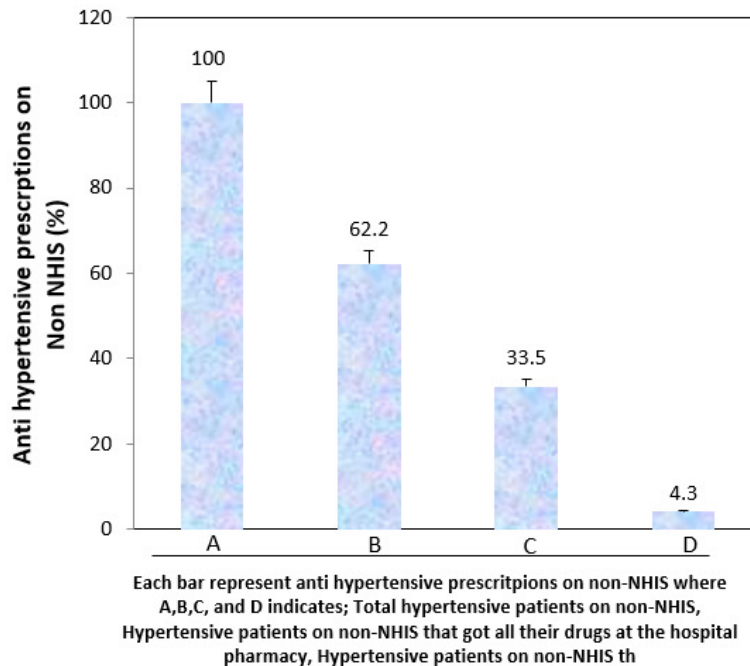


Fig. 7. Anti hypertensive prescriptions in non NHIS

3.2 Discussion

The present study investigated the rate of anti-hypertensive prescriptions among out patients, and the implications of high cost of medications. This study was based on accessing prescriptions generated from General Out Patient Department (GOPD), at Federal Medical Centre Lokoja, Kogi State, Nigeria. All the prescriptions emanated from GOPD for the period of six (6) consecutive months were collated and analyzed under thirteen categories as listed above.

Total prescriptions of 8,166 (100% of the whole prescriptions analysed) were collated for the period of six (6) months, 6,393 prescriptions represent 78.3% of the total prescriptions were prescriptions without any anti-hypertensive drugs and 1,773 represent 21.7% of the total prescriptions contained one or more anti-hypertensive drugs. Most cases of hypertension discovered at GOPD are accidental. Many patients especially in Sub Sahara Africa (Nigeria inclusive) only visit the hospital after the manifestation of symptoms like headache, insomnia, restlessness, general body weakness (asthenia), general body pains (myalgia), joints pain (arthralgia), difficulty in breathing (dyspnoea), dizziness, etc. This further emphasises the reason of an increase in hypertensive cases in Nigeria-due to lack of regular medical check-up.

Of all the total prescriptions collated, 5,061 represent 61.98% of the total prescriptions were on NHIS prescription whereas, 3,105 represent 38.02% of the total were non-NHIS and also, out of 1,264 of all prescriptions that contain one or more anti-hypertensive drugs, 986 represent 78% of all anti-hypertensive prescriptions were NHIS while 278 represent 22% were non-NHIS. This shows that majority of the patients visited GOPD are NHIS enrollees (62%), and majority of antihypertensive prescriptions were NHIS. These suggest that people under NHIS seek medical care in the hospital than non NHIS and it will be easier to discover earlier non-communicable diseases such as hypertension among groups cover by NHIS.

Of all 5,061 NHIS prescriptions, 986 i.e. 19.5% of NHIS prescriptions contained anti-hypertensive, while the remaining 4,075 i.e. 80.5% were non anti-hypertensive.

Only 369 represents 37.4% of 986 hypertensive patients on NHIS got all their drugs at the supposed 10%, whereas, 507 represents 51.4% of the hypertensive patients on NHIS got only part but not all their drugs at 10%, while 110 patients on NHIS represent 11.2% got none of their drugs at 10% as. Majority of the hypertensive patients under NHIS did not satisfactorily get their prescribed drugs, either not available or not captured under NHIS. This might cause discouragement to patients under NHIS, and further prevent those not yet captured by the scheme from enrol.

On the other hands, 173 prescriptions represent 62.2% of all 278 hypertensive prescriptions on non-NHIS got all their drugs available, 93 represent 33.5% of non-NHIS hypertensive prescriptions had part of their medications but not all available at the hospital while only 12 non-NHIS hypertensive prescriptions represent 4.3% had none of their medications available at the hospital. Higher percentages of non NHIS hypertensive patients (62%) got all their drugs at the hospital pharmacy. Generally, higher percentages of non NHIS 62%, compare to 37% NHIS patients got all their drugs complete and only very few 38% non NHIS compare to 63% NHIS hypertensive patients got only few of their prescribed medications. This might further suggest that NHIS patients were deliberately denied access to medications. This lopsided in the availability of drugs for the various categories might be responsible and justifies some publications which stated that between 2% to 4% only of Nigerian populations is covered under NHIS compare to 69% of other countries like Ghana, Kenya, etc. who started the scheme far after Nigeria [19,20].

4. Conclusions

There were high cases of hypertension discovered at GOPD and a majority of NHIS patients visit hospital for medical services than non NHIS. More non NHIS patients have more of their drugs available than NHIS patients. Therefore, there should be more attention towards non-communicable diseases like hypertension and increase in the awareness campaign and accessibility to drugs. Also, Government should make NHIS more attractive by increase enrollee's satisfactions and strategize to increase its coverage among states workers and private employees.

Acknowledgement

Our special gratitude goes to the HOD of pharmacy department, all staffs of pharmacy department, Federal Medical Centre (FMC), Lokoja, Kogi State, Nigeria, and Pharm. Ikudabo Moses Oluwatobi. Without you all this research work will not have been successful.

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