SCREENING CAMPAIGN FOR KIDNEY AWARENESS MONTH MARCH 2019 ACTIVITY AND RESEARCH REPORT

THEME:
KIDNEY HEALTH FOR EVERYONE EVERYWHERE

BY THE IYA FOUNDATION & SCOHE CAMSA

TABLE OF CONTENTS

This report presents the main findings of the screening campaign for kidney awareness month among participants aged 25–60 years of age, conducted on the 14th March 2019 and 21ST March 2019 in Buea and Limbe, at Buea regional hospital and Presbyterian church respectively.

This campaign usually called green campaign occurring every march and allocated for kidney awareness was conducted by the Iya Foundation (TIF) Inc and SCOHE CAMSA. TIF is a non-profitable organization aimed at promoting kidney health education, early detection of kidney failure, promote organ donation and fund raising for low income uninsured end stage renal disease (ESRD) patients survey. SCOHE is a standing committee on health and environment under CAMSA (Cameroon medical students' associations) aimed at disease prevention within our society, raising awareness about global public health issues among medical students and within our society. The key take-outs of the screening campaign research are as follows:

1.1. CAMPAIGN DIAGNOSTICS

· Total number of individuals screened was 192 out of 200 participants, constituting over 90% of the target population.

· Out of the 192 participants, 126(65.6%) were female and 66(36.4%) were male

· 66(34.3%) of these participants were at high risk to CKD and the rest 126(65.7%) were at low risk to CKD.

1.2. KNOWLEDGE AND AWARENESS

· Out of the 192 participants, 124 (65.3%) were aware (had good knowledge of CKD risk factors) and 66 of them (34.7%) were unaware (lack good knowledge of CKD risk factors).

1.3. ATTITUDES AND BELIEFS

Screening campaign contributed to a positive belief that CKD can be prevented by early detection and control of the potential risk factors.

Out of the 192 participants, 170(99.4%) participants gave positive response to screening campaign as a positive step in preventing CKD in our society.

2.1. CAMPAIGN BACKGROUND

Chronic Kidney disease (CKD) is defined as abnormalities of the kidney structure or function present for >3 months with implication for health[1]. Between 2010 and 2015 kidney disease rapidly climbed the ladder from being 18th cause of global death to the 12th position and accounting for 1.1 million deaths worldwide with poorest populations being at high risk.

Risk factors such as diabetes, hypertension, including HIV and associated risk like obesity potentially exposes the patients to CKD therefore controlling them could make quantum leap in fighting CKD in our society.

World Kidney Day (WKD), an initiative of the International Society of Nephrology and the International Federation of Kidney Foundations. Since its inception in 2006, WKD has become the most successful effort ever mounted to raise awareness among decision-makers and the general public about the importance of kidney disease. The focus of WKD 2019was"kidney health for everyone everywhere".

This campaign usually called "green campaign" and allocated for kidney awareness has been introduced by the Iya foundation every year in March since 2017, to sensitize on Kidney diseases and to call for actions to protects it. This year, the campaign was conducted by the Iya foundation (TIF) Inc and SCOHE CAMSA toraise awareness on Kidney health and diseases, to provide for free screening that enabled detectionof potential modifiable risk factors to CKD mainly hypertension, diabetes and associated risk; obesity, early diagnosis of CKD in order to reduce complications or slow progress to end stage renal disease (ESRD).

The first wave of activity for the campaign took placeon the world's kidney day,14th March 2019 at buea regional hospital and the second wave of activity occurred onthe 21ST March 2019, Presbyterian church, limbe. All aimed in meeting the 2019 global kidney day theme: "kidney health for every one everywhere".

2.2.KEY OBJECTIVES

Screening was for research, educative, diagnostic and management purposes with the following aims at the Buea and Limbe community.

Research:

·   To know the sociodemographic of participants as these factors could influence health seeking behaviours

·   To assess participant's knowledge on risk factors to chronic kidney disease (CKD) and knowledge on preventive measures to combat the various risk factors.

·   To identify proportion of the participants who already have risk factors to chronic kidney disease.

EDUCATIVE:
·   To inform participants on therisk factors to chronic kidney disease.
·   To educateparticipants on the importance of the kidney to the body and on early symptoms of kidney failure.
·   To sensitize on preventive measures to combat the various risk factors of chronic kidney disease in the Buea and Limbe community.

DIAGNOSTIC:
·   To newly diagnose high risk patients for kidney disease.
·   To provide early detection of Kidney failure.

MANAGEMENT:
Management of the diagnosed conditions was not done on the campaign spot but was achieved by referral and follow-up to nearest reference hospitals mainly buea regional hospital and limbe regional hospital. This was to ensure that all new diagnosed patients with any of the comorbidities screened for, are carefully referred and follow-up in a reference hospital by the expertise medical expect (e.g.: nephrologist, internist).

2.3. METHODOLOGY

DESIGN:
Our study design drew on descriptive study phenomenology. Qualitative data collection methods included preassessment questions to draw information on socio-demographic, background, awareness and knowledge about CKD from 200 participants aged 25-60 years. This was done by an online survey method via an application "google forms" that allowed for direct data analysis. Quantitative data collection included anthropometric measurements, clinical variables which was processed via an online application "google sheets".

STUDY PARTICIPANTS AND SAMPLE
Two townships (Buea and Limbe) were randomly selected within the southwest region of Cameroon.   Estimated sample included 200 participants recruited for screening campaign. Selection criteria included men and women aged between 25 and 60 years old (those eligible for free screening and had higher risk with or without documented risk factors, those who had never been screened or who had failed a follow-up).

Achievement of the screening campaign on the field required recruitment of 12 selected volunteers(11 medical students from faculty of health sciences, university of Buea and 1 master student in laboratory research from faculty of health sciences, university of Buea) by SCOHE CAMSA in collaboration with TIF. Responsibilities was shared among volunteers as they were grouped 3 per slot to fulfill data collection and entry during screening program.

Campaign had 4 main phases: pre-assessment phase, sensitization phase, screening phase and counseling phase.

1.   PRE-ASSESSMENT PHASE:

This phase made the research component of the campaign by providing questionnaires aimed at getting patients demographics, identifying proportion of the participants who already have predisposing risk factors and assessing participant's knowledge on risk factors to chronic kidney disease and knowledge on preventive measures to combat the various risk factors.

2.   SENSITIZATION PHASE:

The educative goal of the campaign was achieved by using portable posters with messages and giving health talks to educate participants on the risk factors to chronic kidney disease, importance of the kidney to the body and highlighting of early symptoms of kidney failure.

3.   SCREENING PHASE:

Participants were assigned numbers and they were called for screening following hierarchy of the numbers. This phase enabled the diagnostic purpose of the campaign by establishing diagnosis of potential predisposing conditions (hypertension and diabetes)to kidney failure and making new diagnosis of risk to chronic kidney disease from level of proteinuria.

4.   COUNSELLING PHASE:

This phase followed the screening phase and counselling was individualized based on the individual's test results. It helped in promoting good health seeking behaviors as a measure of control or prevention of the potential risk factors screened for. This phase also facilitated management of the newly diagnosed patient by referral and follow-up to nearest reference hospitals mainly Buea regional hospital and Limbe regional hospital.

DATA COLLECTION

Responsibilities was shared among the 12 volunteers as they were grouped 3 per slot to fulfill data collection and entry during screening program. Criteria of selection was based on their clear endeavor to participate, ability to perform defined tasks and their full availability to engage throughout the program. Rehearsal were also done 2 hours prior to the start of the activity to ensure all volunteers had good mastering of their duties.

Individuals without documented risk factors were screened for these risk factors: Overweight, Obesity, Hypertension and Diabetes. All participants had a urine analysis performed to detect level of proteinuria and/or glycosuria. For convenience purposes, 4 slots were defined and volunteers were grouped 2-3 per slots to achieve both qualitative and quantitative data collection as follows.

SLOT 1:

A Preassessment was done via online questionnaires, to assess basic demographic mainly sex and age, background of the participant; documented or known history of hypertension, diabetes, awareness and knowledge about CKD risk factors and ways to modify or avoid them. This was done by "true or false questions" and "yes or no questions" and percentage of the responses could be categorized into 2 groups: high risk(presence of diabetes or hypertension) or low risk (absence of diabetes or hypertension) and aware(good knowledge of risk factors and ways to modify them) or unaware(absence of good knowledge of risk factors and ways to modify them).

SLOT 2:

A portable stadiometer and amechanical beam scale were used to measure the height and the weight then a BMI was calculated and recorded. Recordings were categorized into underweight (<18.5), healthy (18.5-24.9), overweight (25-24.9), Obese (>30). Blood pressure (BP) was also measured with an automated BP machine and recording were classified into: normotension (≤120/80), hypertension grade 1(140-159/90-99), hypertension grade 2(≥160/≥100, hypertension grade 3(≥180/≥110) according to European Society of Hypertension, classification of blood pressure. Results were noted in an individualized screening card with patient's name and findings were entered in a machine encoded with patient's initials.

SLOT 3:

Glucometer and test strips were used to measure individual's blood sugar level and value recorded as fasting blood sugar or random blood sugar and classified as hyperglycemia for fasting blood sugar(FBS): >200mg/dl and/or random blood sugar(RBS): 70-125mg/dlUrine dipsticks and 2h urine collected in a plastic cup and analyzed mainly for proteinuria, glycosuria and also ketonuria, leucocyturia. Results were noted in an individualized screening card with patient's name and findings were entered in a machine encoded with patient's initials.

SLOT 4:

Counseling was done on an individual basis. Patients were encouraged to take on good diet habits and good social attitudes as a lifestyle modification measure to control the poor parameters (elevated BP; high BMI, elevated RBS or FBS) and/or to keep up with good parameters. Patients newly diagnosed were counseled about the risk of the high values predicting chronic condition (be it diabetes or hypertension or kidney failure) and referred to nearby hospitals for management and follow up.

Post assessment of individual's knowledge on kidney health and CKD was done via online questionnaires on "google form application". This was to ensure that participants acquired good knowledge from the educative talks and key take-out with good knowledge of kidney health, driving positive healthy lifestyle measures. This was done by "true or false questions" and "yes or no questions" and percentage of the responses could be categorized into 2 groups: aware (good knowledge of risk factors and ways to modify them) or unaware (absence of good knowledge of risk factors and ways to modify it).
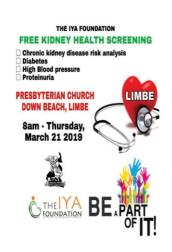
DATA ANALYSIS

Qualitative data obtained in preassessment and post assessment was recorded and analyzed automatically by theonline application; "google form". It was then compared with the preassessment to obtained relative level of awareness of kidney health before and after the screening health talks. For entry of quantitative data including body mass index, blood pressure, blood sugar level, proteinuria, glycosuria and also ketonuria, leucocyturia, patients name was encoded with name initials and findings were recorded and interpreted collectively via interferential statistical methods on an online application; "google sheets". This enabled to determine percentage of the participants screened positive or negative for the potential risk factors to chronic kidney disease (CKD). The smartness of the application allowed for easy manipulation of the data and ensuring data validity and no loss of the information in the process.

ETHICAL CONSIDERATION:

An introduction of the screening campaign team was done by both the volunteers of the campaign under SCOHE CAMSA and the leaders of the campaign initiative under the Iya foundation. A detailed description of the screening campaign process was given with its objectives and implications. A verbal informed consent was taken from all participants before collection and processing of data, with volunteers and participants as witnesses. Confidentiality was ensured using code numbers rather names during filling of online questionnaires and using patient's initials during entry of findings from screening tests. All tests were free for all participants as a compensation to their participation in the screening program

CAMPAIGN ELEMENTS

A "free kidney health screening campaign" ran in mass media, with print advertisement (via invitation letters to religious groups)and online advertisement (via digital display, WhatsApp and Facebooktilet o social groups) including mouth to mouth communication which was maximized to ensure a large scale of impact. IYA public relations support for the campaign included posters at campaign venue and flyersdistributed to all participants. SCOHE CAMSA led an online advertisement:"Call for volunteers" via google form application and shared on social media (WhatsApp) to recruit the team to perform the screening campaign on the field. An example of the online tiles and print advertisement and online Call for volunteers have been provided below:
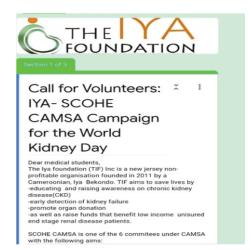

Image1.1. Online Tiles

Image 1.2. Print advertisement

Image 1.3. Online call for volunteers

2.4. NOTES FOR THIS REPORT

This report is a compendium of the activities performed before, during and after the screening campaign including the research implication of the campaign. Activities performed before this campaign are presented under the session "campaign elements" and activities performed during and after the campaign including research implications are presented under the session "Methodology". Both ultimately contributed to the success of the campaign and its report.
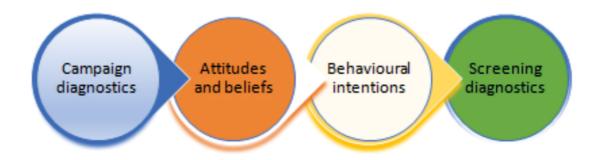
This report presents the main finding of this screening campaign among participants from buea and limbe, aged 25–60years of age, conducted in March 2019.The overarching objective of this campaign was to focus on 4 key areas:

SOCIODEMOGRAPHIC OF PARTICIPANTS

SEX:

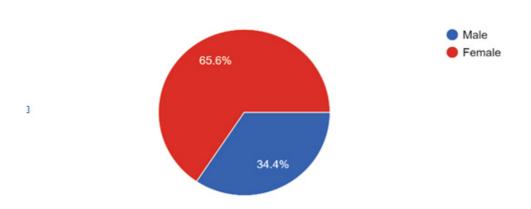Of the 192 participants, 126 were female (65.6%) and 66(36.4) were male as seen on the diagram below.

Figure 4.1 Sex proportion of participants

PREVALENCE OF RISK FACTORS TO CKD AMONG PARTICIPANTS

Of 192 the participants, 40 had known history of hypertension (20.8%), 10 had known history of diabetes (5.2%), 16 had known history of both hypertension and diabetes (8.3%). Therefore, 66 of these participants (34.3%) were at high risk to CKD and the rest 126(65.7) were at low risk to CKD.

The following chart shows proportion of the participants who already have potential risk factors mainly hypertension or diabetes or both to chronic kidney disease.
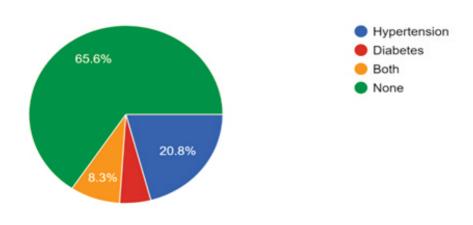

Figure 1.4.2. Diagnostic history of participants

KNOWLEDGE AND AWARENESS ON HYPERTENSION AND DIABETES AS POTENTIAL MODIFIABLERISK FACTORS TO CKD.

Of the 192 participants we had 190 responses, 124 of them (65.3%)were aware (good knowledge of these risk factors) and of 66 them (34.7%) were unaware (absence of good knowledge of these risk factors). The 2 participants left outs for this question could be an error from the interviewers during recording or an internet connection failing recordings as this was on an online questionnaire.

KNOWLEDGE AND AWARENESS ON PREVENTIVE MEASURES TO FIGHT THESE RISK FACTORS.

Of the 192 participants we had 189 responses, 129 of them (68.3%) were well informed (good knowledge on ways to modify these risk factors), 12 of them (6.3%) were fairly informed(poor knowledge on ways to modify these risk factors) and 8 of them (25.4%) were uninformed (no knowledge on ways to modify these risk factors).The 3 participants left outs for this question could still be an error from the interviewers during recording or an internet connection failing recordings as this was on an online questionnaire.

4.1. ATTITUDES AND BELIEFS

Screening campaign contributed to a positive belief that CKD can be prevented by early detection and control of the potential risk factors.

Of the 192 participants we had 171 responses, 170 of them (99.4%)gave positive response to screening campaign as a positive step in preventing CKD in our society. The 21 participants left outs for this question could still be an error linked the same reasons as the other left outs.

4.2. BEHAVIORAL INTENTIONS

Effectiveness of TIF- SCOHE CAMSA screening campaign in increasing the number of 25-60-year old involving in positive health behaviors:

Of the 192 participants, we had 189 responses, 103 of them (54.5%) have never participated in a screening campaign before and 86 of them (45.5%) have participated in a screening campaign before.

4.3. SCREENING DIAGNOSTICS

Total number of individuals screened was 192 out of 200 participants, constituting 90% of the target population. 8 participants dropped out probably due to impatience and the long waiting time before screening. Screening determined proportions of the participants with diagnosis of obesity, diabetes, hypertension and markedly increased albuminuria.

Results showing proportion of participants who were diagnosed for screened risk factors to chronic kidney disease which included obesity, diabetes, hypertension, proteinuria is as follows

RISK FACTOR 1: OBESITY

Of the participants screened, 74 were obese (37.9%) implying that a good number (37.9%) of the participants was noted for obesity, a well-known associated risk factor to CKD.
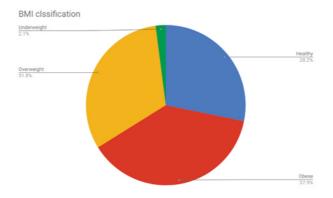

Figure 1.7.1. Participants BMI and interpretation

RISK FACTOR 2: DIABETES

Of the participants screened, 9 were positive for hyperglycemia (4.6%) and 6 of the 9 had glycosuria (3.1%).It is well noted that 26 of the 127 participants had a known history of diabetes and were on treatment. Comparing these results with participants' background, no new diagnosis was made. These results implied that: 9 out of the 26 participants with a known history of diabetes had a poorly controlled glycaemia and the remaining 17 had a well-controlledglycaemia. Patients who were positive and were counseled on the importance of being compliant to treatment and encouraged to go for follow-up appointment.

RISK FACTOR 3: HYPERTENSION

Of the participants screened, 82 were positive for hypertension. 56 of them were diagnosed with grade 1 hypertension (28.9%), 14 of them had grade 2 hypertension (7.8%), 12 of them had grade 3 hypertension (4.7%). 56 out of these 82 were already known for hypertension and on treatment, so were counseled to be more compliant to treatment and to go for follow up appointments. These results implied that: out of the 82 positives, 56 of them with a known history of hypertension had poorly controlled blood pressure and the remaining 26wherenewly diagnosed with hypertension. These patients were referred for confirmation of results and proper management.

RISK FACTOR 4: MACROALBUMINURIA

Of the participants screened, 11(5.7%) were positive for macroalbuminuria; 7 of them had high increased albuminuria (3.6%) and 4 of them (2.1) had moderately increased albuminuria. It was well noted that 6these patients had known history of hypertension, 2 had history of hypertension and diabetes and 2 were newly diagnosed with hypertension. This result implies that a higher risk to CKD was seen in patients with a known history of hypertension6 out 56 (10.7% of cases), followed by patients who were newly diagnosed with hypertension; 2 out 26(7.7% of cases) then patients with a known history of both hypertension and diabetes; 2 out 16(2.5% of cases), These patients were referred for confirmation of results, further investigations and proper management.

5.1. COMMENTS ON THE FINDINGS

The result of this screening campaign showed that of the 192 participants, 124(65.3%) participants were aware (good knowledge of risk factors to CKD) and 66(34.7%) participants were unaware (absence of good knowledge of these risk factors).This was contrary to the misconception and low level of awareness and knowledge of CKD, including those with risk factors, in a rural community in a southwest of Nigeria. This could owe to the fact that our study population was not in a rural setting and could reflect different level of education that influence health knowledge as well as health seeking behaviours. Screening campaign contributed to a positive belief that CKD can be prevented by early detection and control of its potential risk factors.

Out of 192 total respondents, 66 of these participants (34.3%) were at high risk to CKD and the rest 126(65.7) were at low risk to CKD. Hypertension, diabetes and obesity were identified as the 3 key well known risk factors in our study population.

Higher risk to CKD was seen in patients with a known history of hypertension 6 out 56 (10.7% of cases) followed by patients who were newly diagnosed with hypertension; 2 out 26(7.7% of cases) then patients with a known history of both hypertension and diabetes; 2 out 16(2.5% of cases)which was in line with a study showing that high prevalence of CKD among hypertensive patients at diagnosis, whether the patients are under antihypertensive treatment or not.

5.2.   RECOMMENDATION

Early identification and treatment of CKD will reduce the associated morbidity, mortality and the significant economic and public health burden.

Creating awareness about health risk improves health behaviors, drives the determinants of health and impacts positively on effective prevention and management of kidney disease.

TO THE GOVERNMENTS AND PRIVATE HEALTHCARE INVESTORS:

There is a need for a shift from expensive hospital-based intervention to a less expensive approach because the health benefits and economic value of prevention are greatest, especially, when implemented at the earliest opportunity. And since lifestyle and environmental factors influence the major risk factors of CKD, population-based preventive strategies appear the cheapest and best solution.

To all health professionals, medical doctors, medical students:

From the above data, we should consider assessing renal function with more rigor in newly diagnosed hypertensive patients and determine need to modify antihypertensive treatment. Thus, nephroprotective antihypertensive treatments should be considered as the first choice at the time of diagnosis of hypertension if indicated. We must also take into account associated factors such as age, sex, obesity, dyslipidemia, hyperglycemia, CKD staging, blood pressure staging, cardiovascular disaeases with the ultimate goal to reduce morbidity and mortality related to these conditions.

5.2.   CONCLUSION

The screening campaign for the kidney awareness month commonly called "Green Campaign" was led by the Iya Foundation (TIF) Inc and the Standing Committee on Health and Environment (SCOHE CAMSA) on the World Kidney Day, 14th March 2019 and 21st March 2019 at the Buea Regional Hospital and Limbe Presbyterian Church respectively.

This initiative is a successful effort mounted to raise awareness among decision-makers and the general public about the importance of kidney disease and also serves as a response to the Global Kidney Day2019 focus on "kidney health for everyone everywhere".

Through out this Campaign, over 200 participants were sensitized on Kidney health and risk factors to Chronic Kidney Disease, freely screened for potential modifiable risk factors to CKD mainly hypertension, diabetes, associated risk; obesity, and alarming signs (massive proteinuria) to kidney malfunctioning.

We hope for a greater outreach in the upcoming campaign and to join more potential health stakeholders both government and other NGO's to join forces in preventing CKD in our communities.

Moreover, this screening campaign also served as a capacity building platforms were young health students and professional refine their professional skills during the health programs in the communities.

REFERENCES

1.   KDIGO 2017 Clinical Practice Guideline Update for the Diagnosis,Evaluation,Prevention, and Treatment of Chronic KidneyDisease. Available from: https://kdigo.org/wp-content/uploads/2017/02/2017-KDIGO-CKD-MBD-GL-Update.pdf[Last accessed on 2019 Apr30]

2.   Global Facts: About Kidney Disease. Available from: https://www.kidney.org/kidneydisease/global-facts-about-kidney-disease[Last accessed on 2019 Apr 30]

3.   Chronic Kidney Disease and The Global NCDs Agenda. Available from:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5717948/[Last accessed on 2019 Apr 30]

4.   Gorostidi M, Sarafidis P, Sierra Ade L, et al. 3D.02: Blood pressure variability increases with advancing chronic kidney disease stage. A cross-sectional analysis of 14,382 hypertensive patients from Spain. J Hypertens 2015;33 Suppl 1: e40. Back to cited text no. 7

5.   de B eus E, Meijs MF, Bots ML, Visseren FL, Blankestijn PJ; SMART Study Group. Presence of albuminuria predicts left ventricular mass in patients with chronic systemic arterial hypertension. Eur J Clin Invest 2015; 45:550-6. Back to cited text no. 8

6.   Ajayi S, Mamven M, Ojji D. eGFR and chronic kidney disease stages among newly diagnosed asymptomatic hypertensives and diabetics seen in a tertiary health center in Nigeria. Ethn Dis 2014; 24:220-5. Back to cited text no. 9[PUBMED]

7.   Poudel B, Yadav BK, Shrestha R, Mittal A, Jha B, Raut KB. Assessment of chronic kidney disease in Nepalese people with hypertension. Nepal Med Coll J 2012; 14:25-30. Back to cited text no. 10[PUBMED]

8.   Braga FL, Arruda IK, Diniz Ada S, et al. Renal dysfunction and inflammatory markers in hypertensive patients seen in a university hospital. Arq Bras Cardiol 2013; 100:538-45. Back to cited text no. 11[PUBMED]

9.   Ravera M, Noberasco G, Signori A, et al. Left-ventricular hypertrophy and renal outcome in hypertensive patients in primary-care. Am J Hypertens 2013; 26:700-7. Back to cited text no. 12[PUBMED]

10.   Hasegawa E, Tsuchihashi T, Ohta Y. Prevalence of chronic kidney disease and blood pressure control status in elderly hypertensive patients. Intern Med 2012; 51:1473-8. Back to cited text no. 13[PUBMED]

11.   Llisterri Caro JL, Barrios Alonso V, de la Sierra Iserte A, Escobar Cervantes C, González-Segura Alsina D. Prevalence of chronic kidney disease in hypertensive aged women treated in primary care. MERICAP Study. Med Clin (Barc) 2012; 138:512-8. Back to cited text no. 14

12.   Ohishi M, Tatara Y, Ito N, et al. The combination of chronic kidney disease and increased arterial stiffness is a predictor for stroke and cardiovascular disease in hypertensive patients. Hypertens Res 2011; 34:1209-15.

13.   Awareness, knowledge and perception of chronic kidney disease in a rural community of South-West Nigeria. Available from: https://www.ajol.info/index.php/njcp/article/view/133288[Last_accessed_on_2019_Apr_30]

Organising chairperson
Mme Iya Bekondo
Tel :
Email : iyaproject@gmail.com

Activity Coordinator
Pokam Feunou Ornella
Tel : +237 693 482 982
Email : opokamfeunou@gmail.com

Assistant Activity coordinator
Monika Pouekoua Carl
Tel : +237 674 847 029
Email : brandon

Volunteer
Takoutsing Dongmo A Berjo
Tel : +237 697 350 381
Email :

Volunteer
Asaiteck Sandrine
Tel : +237 671 663 167
Email : acetylene.as@gmail.com

Volunteer
Sevidzem Leonard
Tel : +237 674 636869
Email : sevidzeml749@gmail.com

Volunteer
Forcob Brandon
Tel : +237 671 693225
Email : adhinwin@gmail.com

Volunteer
Landry Dubois
Tel : +237 697 350 381
Email : nyld26598@gmail.com

Volunteer
Ngansop Cabrel
Tel : +237 672 035247
Email :

Volunteer
Dr Ayuk Glennis
Tel : +237 671 469753
Email :

Volunteer
Zolo Ossou Yvan
Tel : + 237 651 996 065
Email : yvanzolovie@gmail.com

Volunteer
Tabot Clara
Tel : + 237 651 996 065
Email : tabotclara@gmail.com

Volunteer
Janice Joy
Tel : +237 697 350 381
Email : fjanicejoy@gmail.com

Volunteer
Larissa Manjo
Tel : +237 677 117886
Email :larissamanjo2008@yahoo.co.uk

Volunteer
James
Tel : + 237 650 423 492
Email :

Volunteer
Tentoum Claire
Tel : + 237 652 385 770
Email :