

Abstracts Presented at the Nigerian Association of Nephrology Scientific Conference, 2016 Sokoto, Sokoto State, Nigeria

SCIENTIFIC SESSION 1A

1. NAN/CKDE/2016/01

EPIDEMIOLOGY OF GLOMERULONEPHRITIS IN AFRICA: A SYSTEMATIC REVIEW AND META-ANALYSIS

G. Okpechi,¹ Ameh, A.K. Bello,² P. Ronco,¹ C.R. Swanepoel,¹ A.K. Pascal⁴

¹E13 Renal Unit, Groote Schuur Hospital and Division of Nephrology and Hypertension, University of Cape, Observatory, 7925, Cape Town, South Africa

²Department of Medicine, University of Alberta, Edmonton, Canada

³Institut National de la Sante et de la Recherche Medicale, Unite Mixte de Recherche UMR_S1155, Paris, France; Sorbonne Universites, Universite Pierre and Marie Curie University, Paris 06, Paris, France; and Assistance Publique-Hopitaux de Paris, Department of Nephrology and Dialysis, Tenon Hospital, Paris, France.

⁴Non-Communicable Diseases Research Unit, South African Medical Research Council, 7505 Cape Town, South Africa

Introduction: Glomerulonephritis (GN) is a common cause of end-stage renal disease in populations of African ethnicity. However, glomerular diseases are still poorly characterised across Africa. We performed a systematic review and meta-analysis to describe the epidemiology of glomerular diseases in Africa between 1980 and 2014.

Methods: We searched PubMed, AfricaWide and the Cumulative Index to Nursing and Allied Health Literature on EBSCO Host, Scopus, African Journals online databases, and the African Index Medicus, for relevant studies. Critical review and meta-analysis were made of the reported data.

Results: Twenty four (24) papers comprising 12,093 reported biopsies from 13 countries were included in this analysis. The median number of biopsies per study was 127.0 (50 - 4436). Most of the studies (70.0%) originated from North Africa and the number of performed kidney biopsies varied from 5.2 to 617 biopsies/year. Nephrotic syndrome was the commonest indication of renal biopsy. Of the reported primary glomerular diseases, minimal change disease (MCD) had the highest prevalence of 16.5% (95% CI: 11.2-22.6) followed by focal segmental glomerulosclerosis (FSGS) (15.9% (11.3-21.1]) and mesangiocapillary GN (MCGN) (11.8% (9.2-14.6)]. Crescentic GN and IgA nephropathy had the lowest prevalence rates: 2.0% (0.9-3.5) and 2.8% (1.3-4.9) respectively. Glomerular diseases related to hepatitis B and systemic lupus erythematosus had the highest prevalence among assessed secondary diseases: 8.4% (2.0-18.4) and 7.7% (4.5-11.7) respectively. There was no evidence of publication bias and regional differences were seen mostly for secondary GNs.

Conclusions: Glomerular diseases remain poorly characterized in sub-Saharan Africa where rates of renal biopsies are declining. Development of renal biopsy registries in Africa is likely to enable adequate characterization of the prevalence and patterns of glomerular diseases; this could have a positive impact on chronic kidney disease evaluation and treatment in the African continent since most glomerulopathies are amenable to treatment.

2. NAN/CKDE/2016/02

PREVALENCE OF CHRONIC KIDNEY DISEASE AND ITS RISK FACTORS IN NORTH-CENTRAL NIGERIA: ANALYSIS OF DATA FROM SEVEN COMMUNITIES IN KWARA STATE

Olanrewaju T.O, Aderibigbe A, Chijioke A, ¹Braimoh KT, ²Popoola A, Kuranga S.A, ³Ajape A, Buhari MO, ⁴Adedoyin OX and Biliaminu S.A, for the Ilorin Renal Study Group

Department of Medicine, ¹Radiology, ²Surgery, ³Pathology, and ⁴Paediatrics. University of Ilorin and University of Ilorin Teaching Hospital, Ilorin, Kwara State, Nigeria

Introduction: Chronic kidney disease is a growing challenge in developing countries, particularly in sub-Saharan Africa. There is dearth of information on CKD in the Nigerian population that is necessary to estimate its burden in a bid to design preventive and management strategies. The aim of the study is to determine the prevalence of CKD and its risk factors in Kwara state, North Central zone of Nigeria.

Method: Seven communities from five local government areas in Kwara state, Nigeria were screened during world kidney days (2006 and 2009-2014). Blood pressure, fasting and random blood sugar, urinalysis, weight, height, waist circumference (WC) and hip circumference were measured. Body mass index (BMI) and Waist-Hip ratio (WHR) were calculated. Microalbuminuria and kidney length by ultrasound were measured in subset of participants while eGFR was derived from serum creatinine, using 4-variable MDRD formula.

Results: A total of 1117 adults, > 18 years with mean age of 43.70±14.12 years were screened. Males accounted for 43% of the subjects. The mean kidney lengths were: right, 93.02±8.03cm and left, 92.70±9.30cm. The observed risk factors for CKD and their corresponding prevalence rates were as follows: proteinuria (13.5%), hypertension (20.7%), diabetes (2.4%), obesity by BMI (21%) and abdominal obesity by waist circumference (14.3%). Microalbuminuria of >30mg/L was detected in 46.3%, and >50mg/L in 21.9% of subjects. The prevalence of CKD by estimated GFR <60ml/min/1.73m² and/or Proteinuria was 15.8%. Hypertension (OR 1.560, 95%CI = 1.291-1.864, P = 0.006), obesity (OR 1.382, 95%CI = 1.141-1.953, P = 0.008), and age (OR 1.206, 95%CI = 1.07-3.791, P = 0.028) were the identified predictors of CKD.

Conclusions: The prevalence of CKD is high among the study population with hypertension, obesity and age being the major observed risk factors. World kidney day affords opportunity for community-based screening of CKD. Efforts should be intensified at preventing and controlling hypertension and obesity in order to reduce the increasing burden of CKD in Nigeria.

3. **NAN/CKDE/2016/03
PREVALENCE, CLINICAL CHARACTERISTICS AND OUTCOME OF OBSTRUCTIVE
NEPHROPATHY IN ILORIN.**

Chijioko A, Olanrewaju TO, Soje MO, Oyedepo PS, Busari KA, Odumosu AS, Afolabi TA
Renal Care Centre, University of Ilorin Teaching Hospital, Ilorin

Introduction: Urinary tract obstruction (UTO) is increasingly being recognized as a common cause of kidney dysfunction in adults and ageing population. Improvement in life style and advances in technology contributes to increase in number of elderly with age related urinary abnormalities. Early detection and prompt correction of risk factors for obstructive nephropathy is crucial in prevention and treatment of kidney failure that may culminate in end stage renal disease. This review is aimed at determining the prevalence, clinical characteristics and outcome of obstructive nephropathy in Ilorin. Methods: We carried out a two year (2014-2015) retrospective review of all patients who presented with clinical and imaging features of UTO with kidney dysfunction. Clinical records of patients were retrieved and relevant information obtained. Patients that had UTO and met criteria for AKI and CKD were taken from the total number of patients for

detailed analysis. SPSS was used for data analysis. Results: A total of 37 out of 470 renal patients (7.9%) had obstructive features with a mean age of 66 ± 14 . Male patients were responsible for 91.9%. The cause of obstructive nephropathy were; Benign Prostatic Hyperplasia (70.6%), urethral stricture (11.8%), carcinoma of prostate (11.8%) and pelvic malignancy (5.9%). Main clinical features were frequency (78%) nocturia (78%), edema(75%) and oliguria(67%). Six (16%) had AKI while 31(84%) had CKD. Five patients with CKD died, giving mortality rate of 16%

Conclusion: Obstructive nephropathy is common, especially in the elderly males. The leading cause is benign prostate hypertrophy followed by urethral stricture in males while carcinoma of the cervix accounted for the majority in females. Early diagnosis and prompt intervention is advocated for better outcomes.

**4. NAN/CKDE/2016/04
CHRONIC KIDNEY DISEASE: AETIOLOGY AND OUTCOME IN GUSAU, NORTH
WESTERN, NIGERIA**

Muhammad AS, Garba BI, Bakare OA, Ahmad MY¹

Ahmad Sani Yariman Bakura Specialist Hospital, Gusau, Zamfara State;
¹North West University, Kano, Kano State

Introduction: Chronic Kidney Disease (CKD) is prevalent with increasing incidence at an alarming rate. The common causes include hypertension, diabetes mellitus and chronic glomerulonephritis (CGN). Outcome of CKD patients depend largely on affordability and accessibility of care. We aim to determine the aetiology and outcome of CKD in Gusau, Nigeria.

Methods: This is a retrospective study of patients managed with CKD from February 2014 to March 2015. Data was analyzed using SPSS version 18.

Results: One hundred and fifty eight patients were managed for various stages of CKD over the study period. There were 103 males (65.2%) and 55 females (34.8%). The mean age was 48.5 ± 18.8 with a range of 14 to 90 years. Hypertension was the commonest cause in 49 (31%) followed by CGN 39 (24.7%), and obstructive uropathy 23 (14.5%). CKD stage 3 and 4 constituted the highest percentage of our patients 36.7% and 37.3% respectively. Thirty six patients (22.8%) were end stage and only 5 (3.2%) were in stage 2 CKD.

Majority 59 (37.3%) had stable renal function, 37 (23.4%) died, 22 (13.9%) were lost to follow up, 15 (9.5%) are on dialysis, 11 (7%) had renal function deterioration, 9 (5.7%) signed against medical advice and 5 (3.2%) were referred.

Conclusion: Majority of our CKD patients were males. Hypertension, CGN and obstructive uropathy were the leading causes. Health education of the populace and subsidizing renal care is recommended in reducing the impact of the burden of CKD.

**5. NAN/CKDE/2016/05
PREVALENCE AND PATTERN OF CKD AND ITS ASSOCIATED RISK FACTORS IN
AIYEPE COMMUNITY OF OGUN STATE**

Oyebisi OO, Jaiyesimi AEA,² Akinsola W,² Sanusi AA,² Arogundade FA, Okunola OO

Department of Medicine, Olabisi Onabanjo University Teaching Hospital, Sagamu, Ogun State

Department of Medicine, Obafemi Awolowo University Teaching Hospital, Ile-ife

Introduction: Chronic kidney disease (CKD) is fast becoming a disease of public health importance. The rise in the population of patients with ESRD is partly related to the failure of early detection of the preclinical stages of CKD and its associated risk factors. In Nigeria and indeed most sub-Saharan Africa, there is no reliable prevalence data due to the lack of renal registry.

The study was set out to determine the prevalence and pattern of CKD and its associated risk factors in a semi-urban community in Ogun state. The knowledge and awareness of the participants were also determined.

Methods: This is a cross-sectional community-based study in which a total of 468 participants were recruited using cluster sampling technique. A structured questionnaire was used to obtain information on socio-demography and knowledge of kidney disease including the risk factors. The eGFR was estimated using the CG formula and the participants were screened for proteinuria. ACR was done for those without overt proteinuria. The prevalence of CKD as well as the level of its awareness among the participants and the associated risk factors were determined.

Results: The study population was 468 subjects of which males constituted 165 representing 35.3%. The mean age of the study population was 48.09 ± 15.73 . About 70% of the participants were aged 20 - 60 years. Females had statistically significant higher level of education than males ($\chi^2 = 22.173$, $p < 0.0001$). The prevalence of hypertension and diabetes were 28.9% and 4.3% respectively.

The prevalence of CKD in this study was 24.3%. Age (OR = 0.090, 95% CI, 1.121-1.067) weight (OR = -102, 95% CI, 0.951-0.858) and dyslipidaemia (OR = -0.618, 95% CI, 0.964-0.301) were found to be predictive on logistic regression.

Conclusion: The prevalence of CKD mainly at preclinical stage is alarming. All efforts must be geared toward more education and preventive strategy.

6. NAN/CKDE/2016/06

COMMUNITY STUDY OF PREVALENCE AND RISK FACTORS FOR CHRONIC KIDNEY DISEASES AMONG PAEDIATRIC AGE GROUP IN ONDO WEST LOCAL GOVERNMENT AREA OF ONDO STATE NIGERIA

Akinbodewa AA, Fadipe F, Adejumo OA, Allio, Agoi, Oluwafemi O, Akinbo E, Lamidu OA
Kidney Care Centre, University of Medical Sciences, PMB 542 Ondo City, Ondo State.

Introduction: Little is known about the epidemiology of chronic kidney disease (CKD) among the paediatric population especially in Sub-Saharan Africa. A prevalence of 12.1 to 74.7 cases per million children has been reported previously. We therefore set out to determine prevalence and risk factors for CKD among children in Ondo State.

Methods: We studied children and teenagers in Ondo West Local Government Area of Ondo State whose parents/guardian gave consent. Children outside 2-17 years and acutely ill children were excluded. Biodata, biophysical profile, blood and urine samples were obtained for analysis using standard sampling techniques. Data was analysed with SPSS17.

Results: A total of 114 school children were included in the study. There were 55 and 59 males and females respectively (M:F = 1:1.1) with age range Of 2-17 years. Their mean age was 8.9914.26 years. 63.2% were in the pre-secondary classes while 33.3% and 3.5% were in the secondary and post-secondary levels respectively.

Their mean estimated GFR was 85.59127.60ml/min/1.73m² with 7.9% of them having estimated GFR<60ml/min/1.73m². Their systolic and diastolic blood pressures were 97.88116.29mmHg and 57.84111.66mmHg

respectively. Blood pressure measurements showed that 14 (12.4%) had pre-hypertension (90th to <95th percentile), 10(12.8%) had hypertension stages 1 and 2.

Six children (5.3%) were obese (BMI > 95th percentile) while 9 (7.9%) were overweight (BMI > 85th and <95th percentile). Their serum total cholesterol, triglyceride and HDL-cholesterol were 4.20±0.83mmol/L, 1.85±0.29mmol/L and 1.24±0.21mmol/L respectively. 0.9% of subjects had 2+ proteinuria. There was no glycosuria or haematuria by dipstick.

The body mass index (p=0.001), systolic blood pressure (p=0.002) diastolic blood pressure (p=0.002), total cholesterol (p=0.003) and HDL-cholesterol (p=0.016) all correlated with estimated GFR.

Conclusions: We therefore conclude that risk factors for onset and progression of chronic kidney disease such as pre-hypertension, hypertension, obesity and hypercholesterolaemia are prevalent among children and teenagers in Ondo State.

7. NAN/CKDE/2016/07

AWARENESS LEVEL OF KIDNEY FUNCTIONS AND CHRONIC KIDNEY DISEASE AMONG FINAL YEAR NURSING STUDENTS IN ABIA STATE: A NEED-ASSESSMENT STUDY FOR EXPANSION OF TEACHING CURRICULUM

Kanush, Onyemaobi A, Offor OJ, Okwuonu CG, Chukwuonyell

Nephrology unit, Federal Medical Centre, Umuahia Abia State

Introduction: Nurses play an important role in management of chronic kidney disease patients at primary, secondary and tertiary levels of care. In order to perform their functions, it is pertinent that they have a good understanding of kidney functions and chronic kidney disease. We do not know if the current educational curriculum prepares them adequately for this role.

The study assesses the knowledge level kidney functions and diseases among final year nursing students in Abia state.

Methods: This was a cross-sectional questionnaire-based study involving final year diploma and B.SC nursing students who were randomly chosen. Structured, self-administered questionnaire containing 18 items was the tool for data collection. A score of one was given for each correctly answered question on functions of the kidney, symptoms, signs, causes and complications of chronic kidney disease. A score of 50% and above was regarded as good knowledge.

Results: 200 questionnaires were distributed but 186 were returned (response rate of 93%). Male: Female ratio was 1:14.5. One hundred and seventeen (62.9%) knew the correct definition of CKD but only sixty-nine (37.1%) knew the normal range of glomerular filtration rate. Eighty-one (43.5%) had good knowledge of kidney functions while 39 (21%) had good knowledge of CKD. Overall, 42 (22,6%) had good knowledge of kidney functions and CKD. Students who rotated through the dialysis unit during their clinical posting had higher mean knowledge score than others ($p=0.03$). There was no significant difference in the mean knowledge scores of the diploma and BSC students ($p=0.82$).

Conclusion: The majority of the final year nursing students had poor knowledge of kidney functions and CKD. There is need to expand the current teaching curriculum so as to increase the knowledge of these future nurses on basic concepts of CKD.

**8. NAN/CKDE/2016/08
PREVALENCE OF MICROSCOPIC HAEMATURIA AMONG ASYMPTOMATIC
PRIMARY SCHOOL CHILDREN IN SOKOTO, NORTH-WESTERN NIGERIA**

¹Jiya FB, ¹Audu LI, Liman HM, ¹Jiya NM, ¹Ibitoye PK, ¹Isezuo OK, Ugege MO ¹Adamu A

¹Department of Paediatrics, Usmanu Danfodiyo University teaching Hospital, Sokoto; Department of Paediatrics, National Hospital, Abuja, FCT;

²Department of Medicine, Usmanu Danfodiyo University teaching Hospital, Sokoto

Introduction: Microscopic haematuria (MH), the presence of at least 5 red blood cells (RBC's) per microliter of centrifuged urine, may signal significant renal disease with the degree of haematuria correlating with the severity of the morphological alteration in the glomeruli in asymptomatic children. We aim to determine the prevalence of haematuria among asymptomatic primary school children in Sokoto metropolis.

Methods: Study was prospective and cross sectional. It involved asymptomatic primary school children in Sokoto metropolis. The study population consisted of apparently healthy primary school children aged between 5 and 14 years that fulfilled the inclusion criteria. They were recruited from 31 randomly selected public and private primary schools in the metropolis. Urine samples were collected and analyzed using dipsticks and viewing under microscope. Same was repeated 2 weeks later.

Results: 600 pupils participated, 308 (51.3%) males and 292(48.7%) females with M:F ratio 1.1:1. On initial urinary screening, 9 out of the 600 pupils had asymptomatic microscopic haematuria, giving the prevalence 1.5%. Following the second urinary screening, 3 out of the 9 pupils that initially tested positive for asymptomatic microscopic haematuria had microscopic haematuria, with prevalence of 0.5%.

Conclusion: Asymptomatic haematuria is a common urinary abnormality among primary school children in the study area

9. **NAN/CKDE/2016/09**
HIGH PREVALENCE OF PROTEINURIA AMONG ADULT NIGERIANS: REPORT OF
WORD KIDNEY DAY SCREENING PROGRAMS IN IBADAN.

*Jinadu YO**, *Bello OT¹*, *Coker JM¹*, *Raji YR²*, *Ademola AD⁵*, *Ajayi SO²*, *Asinobi AO³*, *Salako BL²*, *Arije A²*, *Kadiri S²*

¹Nephrology Unit, University College Hospital, Ibadan, Oyo state, Nigeria.

²Nephrology Unit, Department of Medicine, College of Medicine, University of Ibadan, Ibadan, Oyo State.

³Nephrology Unit, Department of Paediatrics, College of Medicine, University of Ibadan, Ibadan, Oyo State.

Introduction: Chronic kidney disease is associated with high morbidity and mortality and early detection and prompt treatment have the potential of halting or retarding the disease process. The world kidney day (WKD) screening programs offer a good opportunity for population based screening for early detection of kidney disease and its risk factors. The aim of this study is to determine the prevalence of proteinuria and associated factors among participants of the World Kidney Day

Methods: This is a cross sectional survey of adult participants of the yearly world kidney day screening programs organized by the adult and paediatric nephrology units of the University College Hospital, Ibadan over a 5 year period (2010 - 2014). Interviewers administered questionnaires were administered to all

participants. Anthropometric and blood pressure measurements obtained. Random plasma glucose was determined using one-touch glucometer and strips while 10ml of urine sample was obtained and 10 point urinalysis was carried out using combi 10 urinalysis strips. Statistical analysis was carried out using SPSS version 20.

Results: A total of 1194 adults made of 656 (54.9%) females and 438 (45.1%) males participated in the screening programs over the 5 year period. The mean age of participants was 40.8 ± 14.2 years. Proteinuria was defined as 1+ or greater. Two hundred and forty (20.1%) had proteinuria while additional 159 (13.3%) had trace proteinuria. Prevalence rates of proteinuria across the 5 years were 2010 (20.2%), 2011 (3.2%), 2012 (9%), 2013 (34%) and 2014 (3.8%). Haematuria, positive urinary nitrite and leucocyte esterase were reported in 40 (3.4%), 22 (1.8%) and 74 (6.2%) participants respectively.

Conclusions: There is high prevalence of proteinuria among participants of world kidney day screening program and participants were not aware of it or its health implication.

10. NAN/CKDE/2016/010

**BURDEN OF CARDIOVASCULAR RISK FACTORS AMONG ADULT NIGERIANS:
REPORT OF WORLD KIDNEY DAY SCREENING PROGRAMS IN IBADAN.**

Bello OT³, Jinadu YO, Coker JM¹, Raji YR², Ademola AD⁵, Ajayi SO², Asinobi AO³, Salako BL², Aarije A², Kadiri S²

¹Nephrology Unit, University College Hospital, Ibadan, Oyo State, Nigeria.

²Nephrology Unit, Department of Paediatrics, College of Medicine, University of Ibadan, Ibadan, Oyo State.

³Nephrology Unit, Department of Medicine, College of Medicine, University of Ibadan, Ibadan, Oyo State.

Introduction: Cardiovascular disease (CVD) has assumed epidemic proportion even in low and mid income countries. It is associated with high morbidity and mortality, in addition to being a major contributor to the burden of non - communicable disease. Early detection and prompt treatment of the risk factors for CVD are the main component of primary prevention, together with creating awareness, regular health education among the population.

We determined the prevalence of risk factors for CVD among adult participants of the World Kidney Day screening programs in Ibadan.

Methods: This is a cross sectional survey of adult participants of the yearly world kidney day screening programs organized by the adult and paediatric nephrology units of the University College Hospital, Ibadan over a 5 year period (2010 - 2014). Interviewers administered questionnaires were administered to all participants. Anthropometric and blood pressure measurements obtained. Random plasma glucose was determined using one-touch glucometer and strips while 10ml of urine sample was obtained and 10 point urinalysis was carried out using combi 10 urinalysis strips. Statistical analysis was carried out using SPSS version 20.

Results: A total of 1194 adults took part in the screening programs over the 5 years period with a yearly average of 239 participants, 656 (54.9%) females and 438 (45.1%) males participated in the screening programs. The mean age of participants was 40.8±14.2 years. Hypertension and diabetes mellitus were reported in 307 (25.7%) and 98 (8.2%) participants respectively. One hundred and fifty-four (12.9%) reported smoking history and 253 (21.2%) took alcohol. Abnormal waist circumference was observed in 389 (32.6%) and abnormal waist to hip ratio reported in 497 (41.6%). Excess weight defined as either overweight or

obesity was observed in 559 (46.8%) participants while overweight and obesity were reported in 354 (29.6%) and 205 (17.2%) participants respectively.

Conclusions: There is high prevalence of cardiovascular risk factors among adult participants of the world kidney day screening program and participants were unaware of it and its health implication.

SCIENTIFIC SESSION IB

**1. NAN/AKIE/2016/01
POST RENALTRANSPLANTCMV DISEASE. CASE REPORT**

Aikpokpo NV, Babagboye EL, Shonibare AS

Renal Centre, Babcock University, Ogun State

Cytomegalovirus (CMV) remains one of the most important infections in solid organ transplant recipients and is associated with significant morbidity and occasional mortality. Its manifestation may be as a result of direct effects of the virus resulting in CMV viremia or tissue invasive disease or indirect effects which may include an increased risk of allograft rejection, opportunistic infections and post transplantation diabetes mellitus. The clinical presentation is often non-specific and diagnosis can therefore be delayed resulting in occasional mortality.

We describe a case of a 65-year-old man who presented with non-specific symptoms of malaise, gastrointestinal pain and altered sensorium in the first month post- renal transplant. He was on acyclovir as anti-viral prophylaxis post renal transplant. Graft function was swift with good urinary output and a fall in the creatinine levels. Failure to improve clinically despite good renal function necessitated further investigations which eventually revealed CMV disease.

The use of acyclovir instead of valganciclovir as standard anti-viral prophylaxis agent post-transplant in a resource-constrained setting was explored and recommendations based on evidence based medicine are offered.

2. **NAN/AKIE/2016/02**
CHARACTERISTICS OF ACUTE KIDNEY INJURY IN ADULT PATIENTS IN A TERTIARY HEALTH FACILITY IN NORTHERN NIGERIA

Bosan IB, Ibrahim A, Oguches M, Tuko MT and Mujtaba AM

Nephrology Unit, ABUTH Zaria

Introduction: Acute Kidney Injury (AKI) is a complex renal disorder with multiple etiologies and manifestations which vary widely between regions and populations and is associated with increased mortality. It is defined by abrupt rise in serum creatinine and /or decrease in urine output to below 0.5ml/kg/hour.

Methods: Patients' records from January 2013 to December 2014 were reviewed retrospectively and data from those who satisfied the definition of acute kidney injury were extracted for analysis using the statistical package for social sciences (SPSS) version 17. Results were presented as means, frequencies and percentages and the significance of relationships investigated using t-test or Chi square test as appropriate.

Results: Three hundred and twenty patients, 2.3% of the total hospital adult admissions and 12.5% of adult medical admissions, had AKI. There were 162 (50.6%) males with mean age 38.51 ± 16.574 and 158 (49.4%) females with mean age 31.22 ± 13.471 . The most common causes of AKI were sepsis (37.2%),

diarrhea and vomiting (27.5%) and hemorrhage (16.9%). About 2/3 of those with sepsis were female while over 3/4 of those with diarrhea and vomiting were males. Most patients (58.1%) presented with stage 3 injuries which had significant influence on renal outcome and mortality. Anemia had a significant influence on the severity of injury and the outcome. Hemodialysis improved the overall outcome.

Conclusion: AKI is not uncommon in our environment and the outcome depends on the etiology, severity of injury and the presence of anemia. Early diagnosis and adequate supportive care including hemodialysis will halt progression to a more severe injury and reduce mortality.

3. NAN/AKIE/2016/03

ELECTROLYTE ABNORMALITIES IN HIV-SERO-POSITIVE ADULTS AT THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL

**PE Fakrogha*, ²*V Ndu*, ²*M David-West*, ¹²*CM Wachukwu*, ¹²*PC Emem-Chioma*, ¹²*RI Oko-Jaja*,¹
DD Alasia, ^U*Hibellgam*, ¹²*FS Wokoma*

¹Department of Internal Medicine, Faculty of Clinical Sciences, College of Health Sciences, University of Port Harcourt, Nigeria.

²Renal unit, Department of Internal Medicine, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria.

Introduction: HIV infection is commonly complicated by renal disease including electrolyte abnormalities with highest rates occurring in hospitalized patients with advanced disease. The aim of this study was to determine the pattern of electrolyte abnormalities in HIV infected patients attending the ARV clinic of the University of Port Harcourt Teaching Hospital.

Methods: Sixty five consecutive HIV infected patients were included in the study between February and December 2015. The relevant haematological and biochemical parameters including PCV, CD⁺ count, serum sodium, bicarbonate, potassium, urea, creatinine and eGFR, respectively were determined.

Results: The mean age of patients was 41.14±10.9(25-79)years. There were fewer males 21(32.3%) compared to females 44(67.7%) with M:F ratio of 1:2. Fifty six (86.2%) patients were on HAART while 9(13.8%) were HAART naive. The most common presenting symptom was leg swelling in 4(6.2%) patients followed by diarrhoea 2(3.1%). Others with frequency of 1(1.5%) each, included vomiting, fever, easy fatigability and oliguria.

The mean serum sodium, potassium, bicarbonate, urea and creatinine, PCV, eGFR and CD⁺ cell count were 137.5±5.4mmol/l, 3.9±0.87mmol/l, 21.92±4.2mmol/l, 8.05±9.9mmol/l, 299.4±496.1pmol/l, 28.87±8.69%, 28.8±8.69ml/min/1.73m² and 359.9±355.5cell/ml, respectively. The commonest electrolyte abnormality observed was metabolic acidosis 35(53.8%). Hyponatraemia was observed in 21(32.3%), hypernatraemia in 4(6.2%), hypokalaemia 8(12.3%) while hyperkalemia was seen in 7(10.7%) patients.

Conclusions: Electrolyte abnormalities are common with metabolic acidosis and hyponatraemia predominating in our study setting. These abnormalities are often silent, there is therefore need for detection and early intervention.

4. **NAN/AKIE/2016/04**
HYPERNATRAEMIA AND THE CHALLENGES OF MANAGEMENT IN A RESOURCE POOR SETTING -A CASE REPORT

Ojoso Oyenuche C, Uchendu GD, Gimba ZM, Agbaji OO, Agaba El

Renal unit, Dept of Internal Medicine, Jos University Teaching Hospital, Jos, Plateau State

Introduction: Hypernatraemia is a rise in serum sodium exceeding 145 mmol/l. The incidence rate in hospitalized patients in the US ranges between 0.3 and 5.5%. Mortality rates of 30-48% have been shown in patients in ICUs with levels above 150 mmol/L. In resource poor settings, accurate laboratory diagnosis and appropriate intravenous fluids for treatment could pose a challenge to the managing physician. We reviewed the case records of a 37year old man who presented with altered sensorium.

Case Report: D.A is a 37 year old man who presented on account of recurrent fever, abdominal pain for a month, with subsequent altered sensorium and reduced urinary output. These symptoms did not abate despite treatment in several hospitals including traditional herbal use.

He was chronically ill-looking and dehydrated on examination, with an unrecordably fast and thready pulse and a Bp of 90/60mmHg. There were no significant findings in the chest and abdomen. He was disoriented with no focal neurological deficits initially but later became unconscious with a GCS of 6/15 and anisocoria (Left pupil 3mm and Right 5mm). Investigations revealed Na-194mmol/l, K-5.5mmol/l, Cl-160mmol/l, HCO₃-31mmol/l, Urea-61.9mmol/l, Cr-819umol/l. Ultrasound and Brain CT-Scans were normal. An assessment of hypernatraemia was made and was managed with reconstituted half normal saline and made progressive clinical improvement. He was discharged after 4weeks on admission with Na- 136mmol/l, K-4.7mmol/l, Cl-104mmol/l, HCO₃-32mmol/l, Urea-4.2mmol/l, and Cr-94umol/l and is presently stable on follow up.

Conclusion: Hypernatremia is treatable with early diagnosis even in resource poor setting. The role of interdisciplinary collaboration is important.

5. NAN/AKIE/2016/05

LUPUS NEPHRITIS AT THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL: A 6-YEAR CLINICAL REVIEW

¹M David-West, ²V Ndu, ²PE Fakrogha, ¹²CM Wachukwu, ¹²PC Emem-Chioma, ²RI Oko-Jaja, ¹DD Alasia, ¹²H Bellgam, ²FS Wokoma

¹Department of Internal Medicine, Faculty of Clinical Sciences, College of Health Sciences, University of Port Harcourt, Nigeria.

²Renal unit, Department of Internal Medicine, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria.

Introduction: Lupus nephritis (LN) is a common manifestation of SLE. About 60% of SLE patients develop LN at some point in the course of the illness. LN is the commonest cause of death in SLE. Global incidence is about 3 per 10,000 (300 per million people). Population and hospital data in Nigeria are sparse. Ile-Ife has the largest report involving 28 patients seen over a 12-year (1998-2009) period.

Methods: This is a 6-year (2010 to 2015) retrospective study. Patient management protocols. Remission induction: IV- Methyl-prednisolone x3 days + Azathioprine or Myfortic (All patients). Maintenance therapy: Oral Prednisolone + Myfortic(3 patients), Oral Prednisolone + Azathioprine(5 patients). Oral prednisolone + Hydroxychloroquine(3 patients). Those with hypertension or significant proteinuria received either ACEIs or ARBs in addition to immunosuppressive therapy.

Results: A total of 11 patients (1male) had LN during the period under review with a mean age 40 ± 9 (27-57) years. Two were previously diagnosed cases of SLE. Eight patients (72.7%) were positive for ANA, while all (100%) were positive for double stranded DNA (dsDNA) with relatively high titres.

All the patients had proteinuria with a mean of 110.7 (15-500) mg/dl. Seven patients (63.6%) had microscopic haematuria but no red cell casts. Mean e-GFR was 58.51 (11-112) ml/min/m². Mean haemoglobin concentration was 8.21 (5.6-10.6)g/dl, while the mean ESR was 97.81 (34- 141) mm/hr. Renal sizes on ultrasound scan were normal, with a mean renal length of 11.91 (9.5- 16.6) cm for the right kidneys and 11.21 (9.4-14.1) cm for the left kidneys except one patient that had bilaterally shrunken kidneys. Only one patient had renal biopsy in an Indian hospital with advanced proliferative LN, which had a full house granular immune deposits of IgA, IgG, C1q on the capillary walls on immunofluorescent staining (ISN/RPSgradeIII/C).

Eight patients (72.7%) had partial clinical remission and are being followed up in the clinic regularly. Two patients (18.2%) had ESRD and are on maintenance haemodialysis. The only male patient died of inter-current infection.

Conclusions: Lupus Nephritis is relatively rare in our centre and this may be due to low renal referral of SLE cases by general practitioners, rheumatologists and dermatologists who usually encounter cases of SLE first.

6. NAN/AKIE/2016/06

DETERMINANTS AND PREDICTORS OF ACUTE KIDNEY INJURY IN THE INTENSIVE CARE UNIT

Adelaja A, Hassan M, Arogundade FA, Okunola O, Sanusi AA, Akinsola A

Department of Medicine, LAUTECH Teaching Hospital, Osogbo ‘

Department of Medicine, Obafemi Awolowo University Teaching Hospital, Ile-ife

Background: Acute Kidney Injury (AKI) is a major contributor to poor patient outcome. It complicates 20-35% of admission in the Intensive Care Unit (ICU). Despite this huge burden, there have only been few population-level epidemiological studies in our environment.

Objective: To determine the Magnitude, Predictors and Mortality rate of AKI in ICU.

Methods: Adults patients in the ICU were recruited consecutively during the period of the study. Patients with AKI were identified using RIFLE (Risk, Injury, Failure, Loss of Renal function, End Stage Renal Disease), and AKIN (Acute Kidney Injury Network) criteria. Patient illness severity was assessed by using APACHE (Acute Physiological And Chronic Health Evaluation) IV scoring system.

Results: Fifty Four (54%) of the 100 patients who met the inclusion criteria developed AKI during the period of this study (RIFLE and AKIN, R 0.692, p <0.001). These included 30 (55.6%) Males and 24 (44.4%) Females. The leading predictors of AKI in the ICU included 13(24.1%) cases of Head injury, 10(18.5%) cases of Advanced carcinoma, 8(14.8%) cases of Sepsis, 5(9.3%) cases of Obstetrics and cardiothoracic surgery each. Four, 4(7.4%) cases of Nephrotoxins, 2(3.7%) cases of Multiple Fractures and Major Burns each. Other cases accounted for the remaining 5(9.2%). The mean for serum creatinine (265.6 SD 296.6, p<0.0001) and potassium (4.1 SD 1.1 p< 0.025).

Fourty, 40 out of the patients who had two or more organ failure died compared to only 7 that survived (p< 0.001). There was a significant correlation between APACHE IV score and mortality rate in the ICU, with a mean score of 42.2 SD 16.9, and 66.0 SD 23.2, p<0.0001) between those patients that survived and those who died respectively.

Conclusion: AKI in critically ill patients presents with high morbidity and mortality rates. Even those patients that survive have a higher risk of ESRD, and higher mortality compared to the normal population. It is important therefore to formulate clinical and political policies that will help in creating awareness at the community level, impart appropriate skills and knowledge into medical personnel, assist in recognizing early cases of AKI, and in the management of these patients especially in the developing countries like our own.

7. NAN/AKIE/2016/07

ACUTE KIDNEY INJURY: AETIOLOGY AND OUTCOME IN GUSAU, NORTH WEST NIGERIA

Muhammad AS, Garba BI, Balogun A, Ahmad MY¹

Ahmad Sani Yariman Bakura Specialist Hospital, Gusau, Zamfara State, ¹North West University, Kano, Kano State

Introduction: Acute kidney injury (AKI) is potentially reversible if recognized and appropriate interventions were instituted early. Haemodialysis improves survival of patients with AKI. We aim to determine the aetiology and outcome of patients who had haemodialysis due to AKI in our center.

Methods: This is a retrospective review of records of patients that had haemodialysis due to AKI between March 2014 and February 2015. Relevant data were retrieved and analyzed using SPSS version 18.

Results: A total of 42 patients were managed during the study period. Of these, 19(45.20%) were males and 23(54.80%) were females. Mean age was 42.12120.67 years (range: 10-80 years). Sepsis was the commonest aetiology 18(42.86%), followed by cardiogenic shock 6(14.29%), acute glomerulonephritis 4(9.52%), obstetric complications. Forty (95.24%) were discharged and 2(4.76%) died. Of the 40 discharged, 34(85.0%) had complete renal function recovered, 3(7.5%) progressed to chronic kidney disease, 2(5.0%) were lost to follow up while 1(2.5%) signed against medical advice.

Conclusion: Sepsis was the leading cause of AKI in our centre and majority of the patients' had recovered renal function. We recommend dialysis to be instituted early in the management of AKI to improve survival.

**8. NAN/AKIE/2016/08
ONE YEAR EXPERIENCE WITH HEAMODIALYSIS CARE IN ZAMFARA STATE,
NORTH WEST, NIGERIA**

Aminu MS, Bature AH, Galadima M

Department of medicine, Ahmad Sani Yariman Bakura Specialist Hospital, Gusau, Zamfara State

Introduction: With the progressive rise in the incidence of kidney disease in Nigeria, the need for renal replacement therapy accessibility and affordability is becoming an ever increasing challenge. We present our experience and challenges with providing haemodialysis in Zamfara state, North West Nigeria.

Methods: This is a retrospective study of all patients who had haemodialysis in our facility over a period of 12 months between November 2014 and October 2015. Data retrieved include age of patients, gender, aetiology of kidney disease, pre-dialysis investigations, estimated glomerular filtration rate, type of access, frequency of haemodialysis, and various outcomes. Data obtained was analyzed using statistical package for social science (SPSS) VERSION 17.

Results: We dialyzed 53 patients with a total of 482 sessions. There were 37(69.8%) males and 16(30.2%) females with a mean age of 38 ± 12 years.

The cause of ESRD was unknown in 29(54.8%), CGN and hypertension accounted for 6(11.3%) each, followed by diabetes 3(5.7%). AKI accounted for 9 (17%) of dialyzed patients. The mean pre dialysis packed cell volume was $23 \pm 6\%$ and mean pre dialysis creatinine was 451 $\mu\text{mol/L}$. Majority of the patients were dialyzed via internal jugular venous cannulation 33(62.3%), 18 (34%) via femoral venous cannulation and 2(3.8) via arteriovenous fistula. At the time of this review, 11 patients (20.8%) were alive and on maintenance haemodialysis, 4 on twice weekly dialysis and 7 on once a week haemodialysis. 7 patients (13.2%) had recovered kidney function and are on follow up at the clinic. 2 (3.8%) were transferred to another facility on request, 1(1.9%) was transplanted and 30 (56.6%) had died as they could not afford maintenance haemodialysis.

Conclusions: Haemodialysis even though relatively available is not affordable to the majority of our patients and this has resulted in an unacceptable high mortality among patients requiring such treatment. The need for health care financing strategies aimed at alleviating this suffering cannot be overemphasized.

9. NAN/AKIE/2016/009

AWARENESS OF CONTRIBUTORY FACTORS OF CKD AMONG STAFF OF NATIONAL HOSPITAL, ABUJA

Olusesi Elizabeth

Renal Centre, National Hospital, Abuja

Introduction: Chronic kidney disease (CKD) has become a leading public health issue worldwide. Awareness on contributory factors of CKD amongst varies in different settings. We examined knowledge of risk factors of CKD amongst different cadres of Staff.

Methodology: This is a questionnaire based descriptive study. Awareness of risk factors of CKD amongst staff of National Hospital, Abuja was assessed using a structured questionnaire. A total of 120 questionnaires were distributed to randomly selected members of staff after the purpose of the study was clearly explained to them. Of these, only 100 questionnaires were returned fully filled. The data from the questionnaires was extracted and analyzed using Microsoft Excel.

Result: From the data analyzed, 58% of the respondents are aware of CKD but only 48% are aware of the risk factors of CKD. The risk factors identified by respondents include Diabetes (8%), obesity (16%), hypertension (56%), physical inactivity (8%), smoking (12%), use of herbal drugs (23%), analgesics (31%), male gender (38%) and family history (62%). 40% of the respondents were not sure of the risk factors. As for knowledge of management, 30% of the respondents identified dialysis as an option, 23% identified dietary management and 30% identified kidney transplant as an option.

Conclusion: This study showed that the respondents are aware of CKD but the knowledge of the risk factors is low. There is an urgent need to intensify public awareness about CKD and its risk factors, especially among health care workers.

10. NAN/AKIE/2016/010

CRITICAL APPRAISAL OF RISK FACTORS ASSOCIATED WITH DEPRESSION AMONG HAEMODIALYSIS PATIENTS

Namalam Faruk

Sokoto state Primary Healthcare Development Agency

Introduction: Haemodialysis is referred to as renal replacement therapy which is one of the treatment modality for patients diagnosed with kidney disease. This study aims to critically review literature in order to appraise risk factors associated with depression among haemodialysis patients and their relative implications. To ascertain the level of strength of each of the risk factors associated depression among haemodialysis patients. Inform participants on the implications and correlation of findings and their usefulness to early detection of depression among haemodialysis patients.

Methods: The method used is the systematic review of relevant peer review articles. This method is chosen in order to achieve accurate and consistent results with a view to avoiding systematic errors.

Results: A total of 94 articles were retrieved on PubMed; out of which 7 primary articles were selected. Quality appraisal of the included studies was conducted using relevant check list according to the study design. Age is a significant risk factor to depression among haemodialysis patients. Low BMI, fatigue, economic and social barriers are also significant risk factors of depression among haemodialysis patients. Vascular access and frequent hospitalization are also significant risk factors.

Conclusion: Haemodialysis patients are often depressed which is associated with variety of significant risk factors. The findings will benefit health practice and enhance service delivery.

SCIENTIFIC SESSION A3

1. NAN/EN/2016/01

CORRELATION BETWEEN ALBUMINURIA AND ANKLE BRACHIAL INDEX AMONG NIGERIANS WITH CHRONIC KIDNEY DISEASE OF VARIOUS AETIOLOGIES IN THE H3AFRICA KIDNEY DISEASE RESEARCH NETWORK (H3A-KDRN) PROJECT

¹Yemi Raji (MD), Adebowale Ademola (MD), Olukemi Amodu (PHD), Samuel Ajayi (MD), Bbabatunde Salako (MD), Dwomoa Adu² (MD), Akinlolu Ojo³ (MD, PHD), and Bamidele Tayo⁴ (PHD) for H3Africa Kidney Disease Reserach Network

University College Hospital, Ibadan, Nigeria, University of Ibadan, Ibadan, Nigeria;

University of Ghana, Accra, Ghana; ³University of Michigan, Ann Arbor, MI; Loyola University Chicago, Maywood, IL.

Introduction: Chronic kidney disease (CKD) is associated with high cardiovascular disease burden and these include stroke, coronary heart disease, heart failure and peripheral arterial disease (PAD). Peripheral arterial disease is easily diagnosed using hand held doppler device. Excess cardiovascular (CV) risk among patients with CKD may be represented by Ankle brachial index (ABI), which is a simple clinical tool for diagnosis of PAD. ABI of less than 0.9 and greater than 1.3 are prevalent among individuals with CKD, reduced estimated glomerular filtration rate and albuminuria.

The purpose of this pilot study is to determine the correlation between albuminuria and ankle brachial index among patients with chronic kidney disease of various aetiologies.

Methods: This is a cross sectional survey of 201 subjects with CKD and 99 specific controls in the H3Africa Kidney Disease Research Network (H3A-KDRN) project. Spot urine was obtained to determine albumin creatinine ratio and serum creatinine to estimate the glomerular filtration rate. History of cardiovascular disease and its risk factors were obtained from all participants. Risk factors for peripheral arterial disease and other CV risk factors were identified. Hand held doppler ultrasound scan was used to determine the ABI. Stages of CKD were determined using modification of diet in renal disease equation.

Results: A total of 300 subjects with complete data were analyzed, 201 were subjects with CKD while 99 controls were individuals without CKD. Females were 136 (45.1%) while male accounted for 165(54.9%). The aetiologies of CKD among this cohort include hypertension 109(54.2%), diabetes mellitus 38(18.9%), human immunodeficiency virus infection 26(12.9%), chronic glomerulonephritis 24(11.9%) and sickle cell nephropathy 4(2.0%). The mean age, albumin-creatinine ratio, body mass index of patients with CKD and controls were 47.3±13.8 vs. 55.6±9.5 years, 144.7±348.7 vs. 23.3±50.6mg/g and 24.8±4.9 vs. 27.1±5.5kg/m², respectively. Albuminuria in cases and controls were 100(49.8%) and 21(21.2%) p < 0.01, respectively. Abnormal ankle brachial index were 35(17.4%) and 5(4.0%) p < 0.00 in patients with CKD and controls, respectively. Albuminuria is negatively correlated with ankle brachial index (r' = - 0.121, p < 0.031)

Conclusions: Abnormal ankle brachial index is common among subjects with chronic kidney disease of various aetiologies and inversely correlated with albuminuria.

2. NAN/EN/2016/02

PATTERNS OF BODY ADIPOSITY AND CORRELATION WITH ALBUMINURIA IN NIGERIAN PATIENTS WITH CHRONIC KIDNEY DISEASE IN THE H3AFRICA KIDNEY DISEASE RESEARCH NETWORK (H3A- KDRN) PROJECT

Yemi Raji (MD), Adebowale Ademola¹ (MD), Olukemi Amodu¹ (PHD), Samuel Ajayi¹ (MD), Babatunde Salako¹ (MD), Dwomoa Adu² (MD), Akinlolu Ojo³ (MD, PHD), and Bamidele Tayo⁴ (PHD) for H3Africa Kidney Disease Research Network

University of Ibadan, Ibadan, Nigeria; ¹ University of Ghana, Accra, Ghana;

University of Michigan, Ann Arbor, MI; ⁴Loyola University Chicago, Maywood, IL

Introduction: Excess body weight is a risk factor for development and progression of chronic kidney disease (CKD). It is routinely determined by using body mass index (BMI). Despite its wide application in clinical setting, BMI does not take into consideration the actual body compositions. CKD progression affects body habitus as a result of loss of adipose tissue and worsening fluid retention and BMI may not give adequate information on fat mass and fat free mass. Measuring electrical bioimpedance resistance and reactance across body tissue offers the hope of adequately assessing body adiposity and lean mass.

The purpose of this study was to determine the pattern of tissue adiposity and its correlation with albuminuria and reduced estimate the glomerular filtration rate (eGFR) among individuals with CKD

Methods: This is a cross sectional survey of cohort of 252 CKD patients and 124 controls in the H3Africa Kidney Disease Research Network (H3A-KDRN) Project. Albumin creatinine ratio (ACR) was determined from spot urine and estimated glomerular filtration rate (eGFR) from the analysis of serum creatinine. Bioimpedance electrical activity at 50Hz was measured using tetrapolar electrodes and fat free mass and fat mass indices were calculated using cross validated formulae. Statistical analysis was performed to estimate correlations between albuminuria and fat mass index (FMI) and fat free mass index (FFMI)

Results: The mean age, ACR, BMI, FFMI and FMI of patients with CKD and controls were 46.4±14.6 vs. 55.4±11.2 years, 147.5±336 vs. 28.7±59mg/g, 24.8±5.0 vs. 26.2±5.4kg/m², 17.7±4.4 vs. 19.5±4.34kg/m and 7±2.4 vs. 6.7±1.7, respectively. There is a positive correlation between albuminuria and FMI (r = 0.813,

p<0.00) and BMI ($r^2 = 0.412$, p< 0.01). However, negative correlations were observed with FFMI ($r^2 = -0.314$, p< 0.01), ankle brachial index ($r^2 = -0.412$, p<0.01) and age ($r^2 = -0.141$, p<0.01)

Conclusions: This study showed a direct correlation between albumin creatinine ratio and measures of body adiposity and inverse correlation with lean body mass. Routine use of fat mass index (FMI) and FFMI in addition to the BMI should be encouraged among patients with chronic kidney disease.

3. NAN/EN/2016/03

IS SERUM CYSTATIN C BETTER THAN SERUM CREATININE IN IDENTIFYING EARLY STAGE CHRONIC KIDNEY DISEASE PATIENTS

Adamu R¹ Aliyu I.S¹, Yusuf R, Ibrahim A² Jibril M. El-Bashir¹, Manu M¹, Suleiman H.M¹, Mohammeda¹

¹Department of Chemical Pathology Ahmadu Bello University Zaria

²Department of Medicine Ahmadu Bello University Zaria

Introduction: The limitation of serum creatinine as a biochemical marker of impaired kidney function has led to continuing search for a better substitute. Most studies have shown that serum cystatin C may be a more sensitive indicator of glomerular filtration rate (GFR) than serum creatinine and presents a more promising marker in evaluation of chronic kidney disease (CKD) patients.

Methods: One hundred and eighteen CKD patients aged 18 to 85 years attending Nephrology Clinic at ABUTH and equal number of age and sex matched controls were recruited for the study. Serum cystatin C and creatinine were assayed using immunoturbidimetry and Jaffes kinetic methods respectively while eGFR was calculated using the Cockcroft and Gault formula.

Results: The mean Serum cystatin C concentration of the patients was 3.106 ± 2.022 mg/L while of the control subjects was 0.764 ± 0.215 mg/L with p value of 0.001. The mean Serum creatinine of the patients was 610.83 ± 618.50 pmol/L while of the control subjects was 89.18 ± 24.99 pmol/L with p value of 0.001. The estimated GFR of the patients ranged from 3-163 mL/min/1.73m², with a mean of 34.41 ± 34.08 mL/min/1.73m². Mean serum cystatin C and creatinine differentiated for eGFR showed that while cystatin C begin to rise at stage 1 CKD that of creatinine did not exceed the upper limit of the reference intervals (0.297-1.153 mg/L and 39-139 pmol/L for cystatin C and creatinine respectively) drawn from the control subjects until stage 3 CKD.

Conclusion: Serum cystatin C levels rise earlier than serum creatinine levels in patients with chronic kidney disease (CKD) and Cystatin C is therefore a better maker of early CKD.

**4. NAN/EN/2016/04
CLINICO-PATHOLOGY OF HYPERTENSIVE NEPHROSCLEROSIS IN PATIENTS
WITH TREATED ESSENTIAL HYPERTENSION**

Bolanle A. Omotoso, Fatiu A. Arogundade, Abubakar A. Sanusi, K. Adelusola, Adedeji, Oluyomi O. Okunola, Afolabi, Muzamil O. Hassan, Micheal O. Balogun, Olawale S. Oguntola, Adewale Akinsola

Obafemi Awolowo University Teaching Hospital, Ilesha, Nigeria

Introduction: Hypertension is a major public health challenge especially among blacks. It is associated with target organ damage, one of which is the kidneys.

This study sought to determine the prevalence of hypertensive nephrosclerosis (HN) among patients with essential hypertension, identify the possible risk factors and determine the relationship, if any between the clinical diagnostic criteria and the histopathologic features.

Methods: Two hundred and eight patients with essential hypertension of at least 5 years were recruited after an informed consent.

The patients were clinically evaluated and had serum chemistry and 24 hours urine profile assessed. eGFR was calculated using CKD- EPI equation and patients with eGFR <60mls/min/1.73m² or 24 hours urinary protein >150mg had a repeat serum creatinine and 24 hours protein estimation repeated 3 months to establish CKD. Each patient had echocardiography and /or dilated fundoscopy. Subjects with minimal proteinuria < 500 -1500mg were assessed for possible renal biopsy. Data was analysed using SPSS package version 20.

Results: A total of 208 patients were studied. Their age ranged between 45 and 65 years with mean age of 57± 5 years and mean eGFR of 85.28± 18.94. Of these, 125 (60%) patients met the clinical diagnostic criteria for hypertensive nephrosclerosis. 40 of which had renal biopsy done but adequate tissues were obtained in only 37 of them. Of all the 37 biopsies only 26 biopsies fulfilled our criteria for light microscopy diagnosis of HN. The extent of global sclerosis correlated with the severity arteriosclerosis (r=0.470, p=0.015) hyalinosis (r=0.475, p=0.014) and interstitial fibrosis (r = 0.484 p=0.012). Global sclerosis was found to correlate with eGFR (r = - 0.470, p =0.015) while the extent of arteriolosclerosis correlated with BMI (r = 0.437, p =0.02) and 24 hours urinary protein excretion (r = 0.407, p = 0.039). About 70% of patients that fulfilled the clinical criteria were confirmed by biopsy.

Low eGFR and increasing 24 hours urinary protein excretion were the only predictors of biopsy proven hypertensive nephrosclerosis identified in this study (p=0.001 and 0.007 respectively).

Conclusion: HN is common in patients with treated essential hypertension.

5. NAN/EN/2016/05

APPLICATIONS OF SPECIAL STAINS IN RENAL BIOPSY INTERPRETATION IN USMANU DANFODIYO UNIVERSITY TEACHING HOSPITAL

Ajayi AS, Sahabi SM, Abdullahi K, Mohammed U, Makusidi AM, Shagari MB, Nwaguw F, Kebbebz*

Departments of Histopathology and Medicine*, Usmanu Danfodiyo University Teaching Hospital, Sokoto

Introduction: The need for special stains especially in the renal biopsies supersedes the original Haematoxylin and eosin. Special stains improve normal and abnormal renal lesions. These components are however not visible by Haematoxylin and eosin light microscopy technique which is the basis for demonstration of general tissue structure. We set to demonstrate the role of special stains applied in renal biopsies interpretation in Usmanu Danfodiyo University Teaching Hospital, Sokoto.

Methods: These were carried out in Department of Histopathology from 2013 to 2015, on a total number of 15 samples which were subjected to: Periodic Acid Schiff, Periodic Acid Silver Methanamine, Masson's Trichrome and Congo Red.

Results:

I. Periodic acid Schiff's

The glomeruli, basement membrane, the tubular basement membrane, the Bowman's capsule, the mesangial cells and matrix. - magenta

Nuclei - blue

II. Periodic Acid Silver Methanamine

Basement membrane, the glomeruli, the tubular basement membrane - Dark brown/ Black

Background - Yellow to red

Nuclei - Blue

III. Masson's Trichrome

Nuclei - Black

Muscle, RBC, fibrin and Cytoplasmic granules - Red

1. Collagen, Amyloid, Cumin and connective tissue - green

IV. Congo red

Amyloid - red to pink

Nuclei - blue

Conclusion: The importance of special stains in renal biopsy interpretation cannot be over emphasized; this is because haematoxylin and eosin cannot give detailed structures of the glomeruli, basement membrane, the tubular basement membrane, the Bowman's capsule, the mesangial cells. However, the use of special stains cannot conclude on the actual lesion, hence the need for Immunofluorescence and Electron Microscopy. We hope these should be employed in our Centre as soon as possible

6. NAN/EN/2016/06

FORMULATION OF DEEPER MAYER'S HAEMATOXYLIN, ITS POSSIBILITY, EFFECTS AND APPLICATIONS WITH EMPHASIS ON RENAL BIOPSIES.

Ajayi AS, Sahabi SM, Abdullahi K, Mohammed U, Makusidi AM, Sani H, Abdulaziz A*

Departments of Histopathology and Medicine', Usmanu Danfodiyo University Teaching Hospital, Sokoto

Introduction: The use of Mayer's alum Haematoxylin covers a wide range of progressive and regressive staining techniques as a nuclear stain. However, the rate of staining deep nuclear is not well appreciated compared with the likes of Ehrlich's and Harris's Haematoxylin. We set to modify the Mayer's haematoxylin in order to improve nuclear staining and good cytoplasmic preservation.

Methods:

Reagents	Modified	Conventional
Haematoxylin	1.5g	1g
Distilled Water	750mls	1000mls
Potassium/Ammonium Alum	50g	50g
Sodium Iodate	0.2g	0.2g
Citric Acid	0.4g	1g
Chloral Hydrate	50g	50g

Results: The modified Mayer's stained deeper and clearer than the conventional Mayer's haematoxylin.

Conclusions: The modified Mayer's haematoxylin can serve as much as a routine stain as other haematoxylin. It can also be applied to different staining technique as the duration of staining and differentiation can be controlled and still yield the much desired results. Though the quality of constituent reagents determine the outcome of both as well as the technique and skill of the user.

7. NAN/EN/2016/07

NEPHROTOXIC ASSESSMENT IN WISTAR RATS EXPOSED TO *VITELLARIA PARADOXA* STEM BARK EXTRACT

Mainasara AS¹, Oduola T¹, Musa U^{}, Mshelia A¹, Muhammed AO^J, Ajayi AS⁴*

Department of Chemical Pathology, Faculty of Medical Laboratory Sciences, Usmanu Danfodiyo University, Sokoto.

Department of Veterinary Pathology, Faculty of Veterinary Medicine, Usmanu Danfodiyo University, Sokoto.

Department of Histopathology, Faculty of Medical Laboratory Sciences, Usmanu Danfodiyo University, Sokoto.

Department of Histopathology, Usmanu Danfodiyo University Teaching Hospital, Sokoto.

Introduction: Different parts of *Vitellaria paradoxa* are being used in the treatment of different diseases in many parts of Nigeria because of its medicinal properties. Although medicinal activities of different parts of the plant have been widely reported, toxicity studies on different organs are yet to be documented. This study was aimed at investigating the effect of ingestion of *Vitellaria paradoxa* stem bark extract on the kidney functions in Wistar rats.

Methods: The oral acute toxicity of the extract (LD_{50}) was performed according to the procedures of Organization for Economic Co-operation and Development (OECD) 420 and sub-chronic toxicity study, according to OECD 407 guidelines. *Body weights of the rats were taken before and twice weekly during the experiment. Urea, Creatinine, Sodium, Potassium, Chloride and Bicarbonate were assayed using standard techniques. Kidney tissues were also processed histologically.*

Results: *No mortality was recorded in the rats after 24 hours and up to 14 days post-oral treatment, an indication that LD_{50} of the extract is greater than 5000 mg/kg. In sub-chronic toxicity study, the results did not show treatment-related abnormalities in all the parameters. There were no significant differences ($p>0.05$) in the values of the control and test groups with the exception of urea which was significantly lower ($p<0.05$) in groups 3(3.67 ± 0.55), 4 (3.53 ± 0.65), 5(2.90 ± 0.80) and 6(5.0 ± 0.69) than the control group (6.27 ± 31) but were within the reference range. Weekly body weight of the rats showed no significant differences ($p>0.05$) between the control and the test groups. Histology results revealed normocytic normochromic cells.*

Conclusion: The present findings showed that *Vitellaria paradoxa* stem bark extract may not possess harmful effect on kidney functions.

**8. NAN/EN/2016/08
HISTOPATHOLOGICAL PATTERNS OF RENAL BIOPSIES IN A TERTIARY HOSPITAL
IN NORTH-WESTERN NIGERIA**

**SM Sahabi, ²MA Makusidi, ¹MA Sakajiki, ²HM Liman, U Mohammed, ¹K Abdullahi, ¹AS Ajayi*

¹Department of Histopathology and ² Medicine Usmanu Danfodiyo University Teaching Hospitals, Sokoto, Nigeria

Introduction: Diseases of the kidney are as complex as its structure. Identifying treatable lesion in the kidney almost always requires renal biopsy, because the biopsy not only confirm the clinical diagnosis but can also provide information on the severity of the injury, activity or chronicity of the lesion and the presence

of other significant renal and vascular lesion. The objective of this study is to document the indication and histological findings of renal biopsies in UDUTH, Sokoto.

Methods: This is a retrospective study of all the renal biopsies received over a 3-year period (January 2013 to December 2015), in the Department of Histopathology, Usmanu Danfodiyo University Teaching Hospital. The biopsies were fixed in 10% formalin, stained with haematoxylin and eosin, PAS, Jones silver and trichrome stain.

Results: Fourteen biopsies specimen was analyse during this period with male to female of 1:1.8. The most common indication for biopsy was nephrotic syndrome which accounted for (64.3 %%). Patient's ages ranged from 4years to 56 years with a peak age distribution in the second and third decade. Six cases (42.9%) show FSGS, while 3 cases (21.4%) show minimal change and hypertensive nephropathy account for one case (7.1%). Three cases (21.4%) were none representative.

Conclusion: FSGS accounts for most cases of nephrotic syndrome. The cases showing minimal histological abnormalities need Immunoflouresence and electron microscopy to confirm or exclude immune complex disease.

Keywords: Renal biopsy, FSGS, Histology, pattern

9. NAN/EN/2016/09

PERCUTANEOUS RENAL BIOPSY AS A DAY CASE PROCEDURE AT AMINU KANO TEACHING HOSPITAL

Ademola B, Abdu A,¹ Bala SM,¹ Atanda A,² Anas I, Suleiman M,³ Abbas B, Tuko MT

¹Department of Medicine, Bayero University, Aminu Kano Teaching Hospital, Kano Nigeria.

²Department of Pathology, Bayero University, Aminu Kano Teaching Hospital, Kano, Nigeria

³Department of Radiology, Bayero University, Aminu Kano Teaching Hospital, Kano Nigeria

Introduction: Percutaneous Renal Biopsy (PRB) has become an essential tool in the diagnosis, prognostication and monitoring of treatment in patients with renal disease. The use of real time ultrasound imaging and automated spring loaded needles have simplified and improved the success of the procedure in terms of better tissue yield and safety with less complications reported. This has lead to the procedure increasingly being done as a day case procedure, which is relevant in a low resource setting like ours. We report our experiences with day case PRB.

Methods: This is a retrospective study of PRB as a day case procedure between January 2014 and December 2015.

Results: There were 49 PRB during the study period with 31 males. The mean age was 33.88±2 years. Indication for PRB was Nephrotic Syndrome in 50% others include asymptomatic proteinuria, CKD of unknown aetiology and suspected HIV associated nephropathy. The mean blood pressure was 119.69mmhg systolic and 79mmHg diastolic prior to procedure while it was 117.0 and 77.5 at the time of discharge. There were 2 major complications including gross haematuria lasting more than 24hrs and perirenal haematoma. Other complication noted was significant pain at the site in 65.3%. There was an average of 3 cores of biopsy tissue with a mean glomeruli yield of 13.7 per patient. 2 cases have to be repeated because of inadequate tissues.

Conclusion: PRB is safe as a day case procedure considering the poor resource setting we practice in.

10. NAN/EN/2016/010

RELATIONSHIP BETWEEN GENDER, AGE AND SERUM CYSTATIN LEVELS AMONG HEALTHY ADULTS IN ZARIA, NIGERIA

Adamu R, Aliyu I.S¹, Yusuf R¹, Ibrahim A², Jibril M. El-Bashir¹, Manu M, Suleiman HM¹, Mohammed A¹

¹Department of Chemical Pathology Ahmadu Bello University Zaria

²Department of Medicine Ahmadu Bello University Zaria

Introduction: Among the shortcomings of serum creatine as a marker of glomerular kidney function is that its serum concentration is related to muscle mass and therefore affected by age and sex. While most studies indicate that serum cystatin C is free of this shortcoming many others report that cystatin C is also influenced by age and sex.

Methods: One hundred and fourteen apparently healthy adults aged 18 to 85 years (comprising 59 males and 55 females) were recruited for the study. Screening for microalbuminuria by immunoturbidimetric method was done before selecting the subjects. Serum cystatin C and creatinine were assayed using immunoturbidimetry and Jaffe's kinetic methods respectively. The data was analysed using the IBM Statistical package for social sciences (SPSS 21).

Results: Serum cystatin C level (mean \pm SD) of male participants was 0.752 ± 0.249 mg/L while that of the female participants was 0.724 ± 0.263 mg/L and the difference was not statistically significant ($p=0.567$). The serum creatinine of the males was 95.91 ± 21.57 and that of the females was 81.96 ± 26.54 with p value 0.003. Serum cystatin C level (mean \pm SD) of participants 50 years or less was 0.663 ± 0.250 mg/L while that of the participants over 50 years was 0.835 ± 0.229 mg/L and the difference was statistically significant ($p=0.000$). The serum creatinine of participants 50 years or less was 90.68 ± 25.01 and that of participants over 50 years was 87.27 ± 25.08 with p value 0.472.

Conclusions: Serum cystatin C is not influenced by gender but significantly related to age in healthy adult population.

SCIENTIFIC SESSION BI

1. NAN/CN/2016/01
**PREVALENCE AND CORRELATES OF CLINICAL NEPHROPATHY IN TYPE 2
DIABETIC PATIENTS IN ILORIN.**

Rafiu MO¹, Aderibigbe A², Chijioke A², Olanrewaju TO², Adamu NA², Dada SA³, Komolafe OO⁴

¹Department of Medicine, Irrua Specialist Teaching Hospital, Irrua, Edo State, Nigeria.

²Renal Care Centre, University of Ilorin Teaching Hospital, Ilorin, Kwara State, Nigeria.

³Ekiti State Teaching Hospital, Ado Ekiti.

⁴Dialysis Unit, Garki Hospital, Abuja, Nigeria

Introduction: The World Health Organisation (WHO) estimated that about 1.7million people are suffering from diabetes mellitus (DM) in Nigeria and this is expected to triple by 2030. With this projection, the incidence of complication like diabetic nephropathy (DN) is also expected to increase. Several previous studies on DN focused on microalbuminuria which does not always indicate nephropathy in type 2 DM. This study was to determine the prevalence and correlates of clinical nephropathy in patients with type 2 DM in University of Ilorin Teaching Hospital, Ilorin, Nigeria.

Methods: This study was a cross-sectional design carried out from January to August 2010. A total of 273 previously diagnosed type 2 DM patients at University of Ilorin Teaching Hospital (UITH) that met the inclusion criteria for the study were recruited. Relevant information was obtained from the subjects with pretested questionnaires. Blood and early morning urine samples were taken from all subjects for determination of urine albumin creatinine ratio (ACR), glycated haemoglobin (HbA1C), fasting plasma glucose, serum creatinine and urea. Estimated glomerular filtration rate (eGFR) was calculated with the modification of diet in renal disease (MDRD) study equation. Subjects with macroalbuminuria (ACR > 300mg/g) had repeat ACR estimation after at least 3 months to established persistence.

Results: Fifty (18.3%) of the 273 subjects with type 2 DM had clinical nephropathy. Gender specific prevalence of clinical nephropathy was 15.3% and 20.6% for males and females respectively. The age of the patients, duration of DM, systolic BP, serum creatinine, fasting plasma glucose, and glycated haemoglobin (HbA1C) correlated positively with the degree of clinical nephropathy. Estimated GFR correlated negatively with clinical nephropathy ($r = -0.695$, $p = 0.001$). The predictors of clinical nephropathy were HbA1C, duration of DM and eGFR.

Conclusions: Clinical nephropathy is present in a significant proportion of type 2 DM patients in UITH, Ilorin, Nigeria. The degree of clinical nephropathy correlated with some clinical and biochemical variables which should be put into consideration in the evaluation and management of clinical nephropathy.

2. NAN/CN/2016/02

FREQUENCY OF CONTRAST-INDUCED NEPHROPATHY IN PATIENTS UNDERGOING INTRALUMINAL CONTRAST STUDIES

¹Oguntola SO, Arogundade FA, Famurewa A, Sanusi AA, Okunola O and Akinsola A

¹Renal Unit, Department Of Medicine, Obafemi Awolowo University, Ile-ife, Nigeria

²Department Of Radiology, Obafemi Awolowo University, Ile-ife, Nigeria

Introduction: The use of iodinated CM in diagnostic and interventional procedures has increased greatly over the past 30 years. Increasing numbers of patients who may be at risk of CIN are being referred for procedures requiring the use of CM. There is therefore a need to improve the knowledgebase of incidence and risk factors of Contrast induced nephropathy in our environment.

Methods: This is a descriptive observational study of 71 consecutive patients referred for Intraluminal contrast enhanced study (HSG, RUCG, MCUG) who met the inclusion criteria and gave consent to participate in the study. The patients' demographic characteristics and pertinent clinical features were documented. All recruited patients were hydrated with 0.9% normal saline at a dose of 1ml/kg/hr starting 1hr before contrast exposure and continued for 6hrs after contrast exposure. 20-100ml of 370mg iodine/ml of urograffin was used. The volume of contrast and the total concentration of iodine used were documented. Blood samples were taken for haemogram, blood glucose determination and serum Creatinine estimation- before the procedure and serial timed blood samples were taken after the procedure at 24hour and 72hour.

Results: Forty one (57.7%) females and thirty (42.3%) males participated in the study. Nineteen (26.8) patients developed CIN. All the eight patients that had four or more risk factors developed CIN. Age >55yrs, PCV <30%, baseline serum creatinine > 100pmol/l, eGFR <60ml/min, concentration of iodine and volume of contrast > 50ml had statistically significant association with CIN.

Conclusion: The incidence of CIN is high in Intraluminal contrast study with the incidence rate comparable to findings in intravenous studies. Risk factors associated with intravenous contrast studies also have a statistically significant association with the development of CIN after exposure to Intraluminal contrast study.

3. NAN/CN.2016/03

PREVALENCE OF CHRONIC KIDNEY DISEASE AND RELATIONSHIP BETWEEN INFLAMMATION, MICROALBUMINURIA AND CHOLESTEROLS IN PATIENTS WITH HYPERTENSION

Olanrewaju TO, Kolo PM¹, Omotoso AB¹, Biliaminu SA², Owoeye JF

¹Division of Nephrology and Cardiology, Department of Medicine; and

²Department of Chemical Pathology and Ophthalmology, University of Ilorin, Nigeria

Introduction: Hypertension is an important cause and outcome of chronic kidney disease (CKD). Inflammatory markers such as highly sensitive C-reactive protein, microalbuminuria and cholesterols are predictors of cardiovascular disease (CVD) in patients with hypertension. Information on the relationships between these risk factors for CVD is sparse among patients with hypertension in Nigeria. The aim of this study is to determine the prevalence of CKD, and relationship between the risk factors for CVD in patients with hypertension in a tertiary health institution in Nigeria.

Method: This is a cross-sectional study of adult patients with systemic hypertension who had been diagnosed and on treatment for minimum of one year at a tertiary health institution in the North- Central zone of Nigeria. Blood pressure, weight, height, waist circumference, and hip circumference were measured. Body mass index and waist hip ratio were calculated. Fasting serum lipid profile, serum uric acid and serum creatinine were also measured. Inflammation was determined by highly sensitive C-reactive protein (hsCRP), while microalbuminuria was defined by urinary albumin-creatinine ratio (ACR) of 30-300mg/g. Estimated GFR (eGFR) was derived from the 4-variable MDRD formula. CKD was defined by the combination of eGFR <60ml/min/1.73m² and ACR (Macroalbuminuria) >300mg.g.

Results: A total of 240 adults aged 18 years were studied. Males accounted for 33.3% of the study population. The mean age was 58.9±12.1years and the median duration of hypertension was 6 (range: 1-37) years. Thirty three percent had uncontrolled hypertension. The mean hsCRP was 7.8±2.8g/L, median (range) of ACR was 93 (3.3-1931) mg/g and eGFR 49.3 (16.5-167.2) ml/min/1.73m². Microalbuminuria was found in 51% and Macroalbuminuria in 25.5%. Patients with very high cardiovascular risk (hsCRP >3g/L and LDL-cholesterol >3.37mmol/L (130mg/dl)) account for 45%. The prevalence of CKD was 18.5%. The marker of inflammation (hsCRP) correlated with microalbuminuria (r = 0.302, p = 0.001), total cholesterol (r = 0.672, p = 0.001), triglycerides (r = 0.578, p = 0.001), and LDLcholesterol (r =0.478, p = 0.001).

Conclusions: The prevalence of CKD is high among treated patients with hypertension in North-central Nigeria. Inflammation, microalbuminuria and lipid profiles are well correlated, and may suggest their clustering with enhanced risk for clinical events in these patients.

**4. NAN/CN/2016/04
KIDNEY FUNCTION ASSESSMENT AMONG CLINICIANS IN THE ERA OF
VALIDATED GLOMERULAR FILTRATION RATE ESTIMATING EQUATIONS; A
HOSPITAL-BASED SURVEY IN SOUTH-WEST AND NORTH-CENTRAL ZONES OF
NIGERIA**

**Sojejylq¹, Olanrewaju TO², Oluyombo R¹, Dada SA¹, Chijioke A², Aderibigbe A², Umar IA⁴,
Obajulowo B¹, Afolabi T², Ayodele C⁵, Abiodun JA³, Bilaminu SA²**

¹Federal Teaching Hospital, Ido, Ekiti State.

²University of Ilorin Teaching Hospital, Ilorin Kwara State.

³Ekiti State University Teaching Hospital, Ado, Ekiti State.

⁴Ibrahim Badamasi Babangida Specialist Hospital, Minna, Niger State/Federal Medical Centre, Bida, Niger State.

Introduction: Estimation of Glomerular Filtration Rate (eGFR) from serum creatinine based equation is a recommended and established tool in assessing kidney function. The use of validated GFR equations has provided a standardized means of detection, evaluation and classification of individuals with kidney disease globally. We set out to evaluate the use of these tools by clinicians in tertiary hospitals in south-west and north-central zones of Nigeria.

Methods: This is a hospital-based survey involving doctors who are practicing in four tertiary health institutions in South-western and North-central Nigeria. A pre-tested structured, self-administered questionnaire was used to obtain the biodata and knowledge of kidney function assessment using validated GFR estimating equation from the participants. The laboratory practice of reporting estimated GFR was assessed. Data were analysed using SPSS version 21.

Results: A total of 183 doctors across five subspecialty participated in the survey. 79.2% of the responders were males and internal medicine had the highest number with 65.6%. Those with 1-5 years of practice were 65.6%. No laboratory in the four tertiary hospital practice routine reported estimated GFR alongside serum creatinine. Creatinine clearance reporting is the common practice of kidney function assessment in all the hospitals. 78.7% of respondent recommended the routine reporting of eGFR alongside serum creatinine. 55.2% were familiar with only one of the eGFR estimating equations. The proportion of estimating equation recognized are; Cock-Croft Gault (72.8%), MDRD (16.8%), Schwartz (10.9%). Only 18.6% of the respondent have good knowledge of GFR estimation, while 18.6% utilize the formulae in their practice. 79.3% of those who have good knowledge were from department internal medicine. Based on the recommended eGFR for referral to nephrologist; 25.5% had good knowledge.

Conclusions: This study demonstrated that there is a poor attitude and knowledge about eGFR and its utilisation among clinicians and laboratory Physicians in tertiary institutions in South West and North Central Nigeria. Training and education of the practicing clinicians in these hospitals are recommended as part of the efforts towards early detection and prevention of CKD.

5. NAN/CN/2016/05

LEFT VENTRICULAR FUNCTION AND STRUCTURE AMONG ESRD PATIENTS RECEIVING HD AND PD TREATMENTS AT A SINGLE CENTER IN SOUTH AFRICA; A COMPARATIVE STUDY

Abdu A² Amira OC,^u Ruhumaya N, Manga P,¹ Naicker S.¹

¹Department of Medicine, University of Witwatersrand, Charlotte Maxeke Johannesburg Academic Hospital, Johannesburg, South Africa.

²Department of Medicine, Bayero University, Aminu Kano Teaching Hospital, Kano Nigeria.

³Department of Medicine, College of Medicine, University of Lagos, Lagos University Teaching Hospital, Lagos, Nigeria

Introduction: Abnormalities of cardiac function and structure are highly prevalent among ESRD patients and contribute significantly to high morbidity and mortality seen in these patients. Left ventricular hypertrophy (LVH) is one of the commonest abnormalities and is associated with an increased risk for cardiac events. Several factors are known to contribute to these cardiac abnormalities including the type of renal replacement therapy the patient is receiving; hence comparing those on haemodialysis (HD) with those on peritoneal dialysis (PD) becomes imperative.

Methods: This was a cross-sectional comparative study conducted at CMJAH. Echocardiography was performed on consecutive patients receiving HD (group 1) those receiving PD (group 2) and normal controls (group3).

Results: A total of 191 patients were studied, 84 in group 1, 44 in group 2 and 63 in group 3. The mean age of subjects in group 1 was 40.1 ± 10.4 years and 52.4% were males, while that of group 2 was 38.1 ± 12.4 years, and 58% were males, and that for group 3 was 40.5 ± 2.0 years and 47.6% were males. The mean duration on dialysis was 45.9 ± 4.92 and 19.5 ± 20 months for groups 1 and 2 respectively. LVH was present in 82.1% in group 1 with 86% being concentric, 68% in group 2 with 63% being concentric compared to only 17.5% in group 3. The difference was not statistically significant between group 1 and group 2 (chi-squared 3.27 and $p=0.07$), but significant between group 2 and group 3 (chi-squared 27.9, $p=0.00$) and between group 1 and 3 (chi-squared 30, $p=0.00$). Systolic dysfunction was present in 20.4% of group 1 and 8% in group 2 (chi-sq 18.2 $p=0.00$). Both LV systolic dysfunction and diastolic dysfunction were significantly higher among group 1 and group 2 patients compared to group 3.

Conclusions: Abnormalities of cardiac structure and function are common among ESRD patient with predominant LVH but no significant difference between HD and PD groups in terms of the prevalence and type of LVH. Echocardiography should form part of assessment of these patients for early detection and commencement of appropriate treatment so as to reduce cardiovascular morbidity and mortality.

6. **NAN/CN/2016/06**
ELECTROCARDIOGRAPHIC PATTERNS AMONGST END STAGE RENAL DISEASE PATIENTS IN A TEACHING HOSPITAL IN SOUTH-SOUTH NIGERIA

Aiwuyoho*, Okoye OC², Umuerriem Ovwasoah², Slater HE',

¹Cardiology division, ²Nephrology Division, Department of Medicine, Delta State University Teaching Hospital, P.M.B. 07, Oghara, Nigeria

Introduction: Chronic kidney disease (CKD) is a major health challenge affecting the world in general. Its devastating impact is more evident in developing countries such as Nigeria. The incidence of cardiovascular disease rises with reducing renal function and majority of patients with chronic kidney disease succumb to cardiovascular events before reaching end stage renal disease. The aim of the study is to correlate electrocardiographic abnormalities with renal function indices including PCV, eGFR amongst others.

Methods: This is a 4-year retrospective study of the electrocardiographic patterns of adult patients with end stage renal disease.

Results: We studied 150 patients, 63.3% males and 36.7% females with a mean age of 50 ± 17 years. The mean packed cell volume, estimated glomerular filtration rate and QTc were 23 ± 5.4 %, 9.7 ± 5.8 ml/min and 444.9 ± 20.2 respectively. Left ventricular hypertrophy was the predominant abnormality accounting for 82.7% and 81.3% using Sokolo-Lyon and Araoye criteria respectively. There was no significant correlation between eGFR and QTc ($p = 0.1836$ CI: -0.2-0.05). Left atrial abnormality and ischemic changes (strain pattern) was noted in 33.3% and 21.3% respectively.

Conclusion: Left ventricular hypertrophy is a very common electrocardiographic abnormality amongst end stage renal disease patients.

7. NAN/CN/2016/07

REAL-TIME ULTRASOUND GUIDED PERCUTANEOUS RENAL BIOPSY AS A DAY CASE PROCEDURE AMONG HIV POSITIVE PATIENTS AT AMINU KANO TEACHING HOSPITAL: A COMPARATIVE STUDY

Abdu A,¹ Bala SM,¹ Ademola B¹, Atanda A, Anas I

¹Department of Medicine, Bayero University, Aminu Kano Teaching Hospital, Kano, Nigeria.

¹Department of Pathology, Bayero University, Aminu Kano Teaching Hospital, Kano, Nigeria

¹Department of Radiology, Bayero University, Aminu Kano Teaching Hospital, Kano, Nigeria

Introduction: Percutaneous Renal Biopsy (PRB) when indicated is important for definitive diagnosis of renal diseases in HIV infected patients (HIVIP), and it has been reported to be safe and more economical as a day case procedure. However not much has been reported on its safety among HIVIP. This study review our experiences in PRB as a day case procedure among HIVIP compared to non-HIV patients (NHIVP) performed within the same period.

Methods: Forty three PRBs were done using an 18 G semi automated biopsy needle under real-time Ultrasound guidance. The vital signs were monitored in the dedicated recovery room before discharging the patient, if there was no complication.

Results: Among the 19 HIVIP and 24 NHIVIP, 10 and 16 were males respectively. The mean age of the HIVIP group was 35.2 years and 30.1 years for NHIV. The mean CD4+ count for HIVIP was 95cells/uL. The major indication for the biopsy in the NHIVIP group was Nephrotic Syndrome while persistent proteinuria and/or reduced eGFR were the main indication in the HIVIP group. The Mean Arterial Pressure (MAP) prior to the procedure in the two groups was 93mmHg and 92.6mmHg in the HIVIP and NHIVP respectively. There was no statistically significant difference in pre and post-biopsy MAP between the two groups ($P < 0.005$). Pain was the common complication to all the patients. There was one major complication noted for each group. Perirenal haematoma in the NHIVIP and gross haematuria lasting more than 24 hours in the HIVIP group. The average number of entry was 4 passes, for which 3 cores were obtained for each of the two groups. Mean glomeruli yield was 14 and 11 glomeruli per patient for the HIVIP and NHIVIP group respectively.

Conclusion: PRB in HIVIP is not associated with more complications, and have as good outcome and biopsy yield when compared to NHIVIP.

8. **NAN/CN/2016/08**
DETERMINANTS OF HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH CHRONIC KIDNEY DISEASE IN OBAFEMI AWOLowo UNIVERSITY TEACHING HOSPITALS COMPLEX, ILE-IFE

Fajobi AO, Olaogun AE and Arogundade FA

Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife

Introduction: The number of patients with CKD is increasing steadily globally with its associated poor Quality of Life (QOL) and high economic burden (Suja et al 2012).

The study assessed the quality of life of patients with chronic kidney disease (CKD) in OAUTHC, Ile-Ife and identified the factors that affect their Quality of Life.

Methods: The study employed a descriptive design. Purposive sampling technique was used to recruit 60 subjects with CKD receiving treatments at OAUTHC, Ile-Ife. SF-36 questionnaire was used to assess the

HRQoL of the subjects. In-depth interview was also conducted on fifteen subjects. Data collected were analyzed using Mean, Standard deviation, ANOVA and Logistic regression.

Results: shows that the HRQoL of the subjects were low in five domains: general health, role limitation due to physical problem, role limitation due to emotional problem, energy/fatigue, and social function. In the remaining three domains the subjects recorded higher scores: physical function, pain and emotional well-being. Overall, they had PHC score of 48.1 ± 17.7 and the MHC score of 61.6 ± 17.8 . The qualitative data revealed that economic burden, burden of time investment, level of family support, stress of travelling and hospital factors namely; faulty machine, inadequate supply of electricity and water, industrial dispute by hospital staff were factors affecting HRQoL of the subjects.

Conclusion: HRQoL of patients with CKD in this environment is generally low.

9. NAN/CN/2016/09
METABOLIC SYNDROME AND FRAMINGHAM RISK SCORE: OBSERVATION FROM SCREENING OF LOW- INCOME URBAN AFRICAN WOMEN.

Samuel Ayokunle Papa¹, David Daisi Ajayi¹, Taiwo Hussein Raimi¹, Eyitayo Emmanuel¹, Olanrewaju Timothy Olusegun, Olusegun Ayanwale Aremu¹*
Ekiti State University Teaching Hospital, Ado-Ekiti, Ekiti State, ¹University of Ilorin Teaching Hospital, Ilorin Kwara State.

Introduction: The heightened cardiovascular risk associated with metabolic syndrome has been documented by several researchers. The Framingham risk score (FRS) is a gender-based algorithm designed to estimate an individual's 10-year chances of development of cardiovascular disease. The scoring system provides an economic and efficient method for identifying individuals at high cardiovascular risk and persons with low risk who need not be unduly worried. The objective was to describe the prevalence of metabolic syndrome and its association with Framingham risk score in predicting cardiovascular disease among a cohort of urban women.

Methods: This is a cross-sectional study was conducted among Christian women faithful during their annual congress meeting International Diabetes Federation edefinition was used to diagnose metabolic syndrome. FRS was calculated for each participant based on age, gender, total cholesterol, HDL-cholesterol, smoking, and systolic blood pressure or currently on any medication to treat high blood pressure. The data was analyzed using SPSS* version 20 (SPSS Inc., Chicago II.) computer software package.

Results: One hundred and eighty-nine women participated in the study. Their mean age was 53.50±9.64 years. Majority 60.3% lives below \$US90 per month. The mean systolic and diastolic blood pressure was 131.80 ±30.17 and 78.28± 13.58mmHg respectively. The mean body mass index and waist circumference was 27.11± 6.84 kg/m² and 91.64±11.19cm respectively. The mean fasting blood sugar was 5.40± 1.76mmol, total cholesterol 5.43±1.06mmol and HDL- cholesterol 1.62± 0.47mmol. Fifty-three (28.0%) were hypertensive. Majority of the participant 80(42.3%) were overweight. Metabolic syndrome was present in 19(10.1%) of the participants. Among those with metabolic syndrome, 18(94.7%) had 10-year cardiovascular risk <10% and 1(5.3%) had 10- 20% risk. There was no significant difference in the mean FRS between participant with and without metabolic syndrome (14.27 versus 11.41 p>0.05).

Conclusions: Prevalence of metabolic syndrome in these cohorts of urban women was low. Individuals with metabolic syndrome were not significantly more likely to have cardiovascular disease than persons without metabolic syndrome.

10. NAN/CN/2016/010

CORRELATION BETWEEN CLINICAL AND HISTOLOGICALLY DIAGNOSED HYPERTENSIVE NEPHROSCLEROSIS IN ESSENTIAL HYPERTENSION

Bolanle A. Omotoso, Fatiu A. Arogundade, Abubakr A. Sanusi, Kayode A. Adelusola, Tewogbade A. Adedeji, Oluyomi O. Okunola, Micheal O. Balogun, Babalola I. Afolabi, Muzamilo. Hassan, Olawale S. Oguntola, Adewale Akinsola

Obafemi Awolowo University Teaching Hospitals' Complex, Iife, Nigeria

Introduction: Hypertension is a major public health challenge especially among blacks. It is associated with target organ damage, one of which is the kidneys. This study sought to determine the prevalence of hypertensive nephrosclerosis (HN) among patients with essential hypertension, and identify the relationship, if any between its clinical and histological diagnosis.

Methods: Two hundred and eight patients with essential hypertension of at least 5 years duration of diagnosis were recruited after an informed consent. The patients were clinically evaluated and had serum chemistry and 24 hours urine profile assessed. eGFR was calculated using CKD- EPI equation and patients with eGFR <60mls/min/1.73m² or 24 hours urinary protein >150mg had serum creatinine and 24 hours protein estimation repeated 3 months to establish CKD. Subjects with proteinuria between 500 and 1500mg were assessed for possible renal biopsy. Data was analysed using SPSS package version 20.

Results: A total of 208 patients were studied. Their age ranged between 45 and 65 years with mean age of 57± 5 years and mean eGFR of 85.28± 18.94. Of the 208 patients studied, 125 (60%) patients met the clinical diagnostic criteria for hypertensive nephrosclerosis, 40 of which had renal biopsy done but adequate tissues were obtained in only 37. Of the 37 biopsies, 26 (70.3%) fulfilled our criteria for light microscopy diagnosis of HN. The extent of global sclerosis correlated with the severity arteriosclerosis (r=0.470, p=0.015), hyalinosis (r=0.475, p=0.014) and interstitial fibrosis (r = 0.484 p=0.012). Global sclerosis correlated with eGFR (r = - 0.470, p =0.015) while the extent of arteriolosclerosis correlated with BMI (r = 0.437, p =0.02) and 24 hours urinary protein excretion (r = 0.407, p = 0.039). Low eGFR and increasing 24 hours urinary protein excretion were the only predictors of biopsy proven hypertensive nephrosclerosis identified in this study (p=0.001 and 0.007 respectively).

Conclusion: This study demonstrates correlation between clinical and histological diagnosis of hypertensive nephrosclerosis among patients with treated essential hypertension.

SCIENTIFIC SESSION B2

1. NAN/RRT/2016/01

PERCEPTION AND BURDEN OF TREATMENT IN PATIENTS WITH RENAL ALLOGRAFT: UNIVERSITY COLLEGE HOSPITAL, IBADAN EXPERIENCE

Akinyemi KF, Takure OT, Ayeni AA, Adeleke K and Oyelami CT

Owena Dialysis Centre, University College Hospital, Ibadan.

Introduction: Kidney transplantation is the most desirable treatment option for patients with end stage renal failure. Individuals with kidney transplant face many challenges such as coping with burdens of taking several pills on daily basis in order to prevent renal allograft dysfunction, yet many live under the constant threat of rejection. The aim of this study is to describe the perception of the patients with renal allograft and the burden associated with its maintenance at the University College Hospital, Ibadan.

Methods: A semi structured qualitative interview was conducted on all participants between January 2006 and February 2015.

Results: A total number of 26 patients with transplant were receiving care. Four patients were transplanted in our Centre. The participants include 19 males (79%) and 7 females (21%). Twenty four (92%) were adults while 2(8%) were paediatric cases. More than 85% of the patients with kidney transplant expressed fear of kidney rejection and burden of medication adherence while only 4(15%) had kidney transplant rejection. Two patients (8%) have had second kidney transplantation.

Conclusions: Transplantation is a therapeutic modality which enhances the quality of life of the patients; most of our patients live in constant fear of rejection thus the need for regular counseling of the patients on the need for medication and clinic adherence.

2. **NAN/RRT/2016/02
HAEMODIALYSIS IN DALHATU ARAF SPECIALIST HOSPITAL: ATWO YEAR
REVIEW**

¹Magai Alidzi⁵, Abene E. Esala, Agaba I. Emmanuel

¹Renal unit, Department of Medicine, Dalhatu Araf Specialist Hospital, Lafia, Nasarawa State

²Renal Unit, Department of Medicine, Jos University Teaching Hospital, Jos- Plateau State

Introduction: Haemodialysis is the main form of renal replacement therapy available in Nigeria. However, this is still largely unaffordable by individuals with resultant poor outcomes of renal failure.

Methods: This was a retrospective study of all patients with renal failure who had dialysis in the renal unit of Dalhatu Araf Specialist hospital (DASH) over the last 2 years. Information retrieved included: name, sex, age, causes of renal failure, serology of patient (HIV, HBsAg, anti-HCV antibodies), number of sessions, total duration on dialysis (in weeks), use of EPO, common problems encountered on the machine and the outcome of the patient.

Results: A total of 68 patients, 50% of who are males were recruited. The mean age was 41±15 years (range: 17-75 years) and the mean weight was 64.3±10.9 Kg (range: 42-87 Kg). AKI was seen in 18 (26.5%) while 50 (73.5%) had ESRD. CGN was the leading cause of ESRD (46%) with ADPKD being the least (2%). The mean PCV at the start of dialysis was 25.7±5.9%. Vascular access was achieved using femoral catheters and tunneled neckline in 48 (70.6%) and 11 (16.8%) respectively. The median number of sessions was 4.0 (range: 1-136) while the median duration on dialysis was 1 week (range: 1-48 weeks) with no significant gender difference (P value = 0.44). The average frequency of dialysis among those with ESRD was twice weekly. Only 15 (30.0%) of those with ESRD continued dialysis after three months. The survival probability at 28 weeks on dialysis was 0.0 for females and 0.3 for males (P= 0.10). EPO was used once weekly in 12 patients (17.7%). Muscle cramps complicated the first sessions of dialysis in 27 (39.7%) patients.

Conclusion: The survival of patients on HD is poor despite its availability.

3. **NAN/MISC/2016/03**
SUDDEN PROFOUND SENSORINEURAL HEARING LOSS FOLLOWING INITIATION OF HAEMODIALYSIS IN A PATIENT WITH END-STAGE RENAL DISEASE: AN UNCOMMON FINDING.

Okwuonu CG¹, Chukwuonye IP, Oviasu E²

¹Department of Internal Medicine, Federal Medical Centre Umuahia Abia State

²Department of Internal Medicine, University of Benin Teaching Hospital Benin City

Introduction: Despite some technological improvements and better understanding of physiology of haemodialysis, a number of complications are known to be associated with it. A diminished hearing acuity has been reported to be one of the complications of chronic haemodialysis and has been recognized as a high frequency deficit from early times of haemodialysis. Several aetiological factors have been linked to its occurrence. These include use of ototoxic medications, electrolyte disturbances, hypertension and haemodialysis treatment itself. Suggestions that vitamin D deficiency might be a contributing factor to hearing loss in renal failure also exist. However, reports of sensorineural hearing loss immediately following initiation of haemodialysis is rare in the literature.

Case report: A 32 year old military officer presented in end-stage renal disease due to chronic glomerulonephritis. He had normal hearing prior to presentation. Renal function test showed markedly deranged urea (256mg/dL), creatinine (12.3mg/dL), potassium (6.5mmol/L) and bicarbonate (12mmol/L), with estimated glomerular filtration rate (eGFR) of 6mls/min/1.73m². He had a session of haemodialysis at blood flow of 150-200mls/min, using the Fresenius F7HPS polysulfone dialyser over 2 hours with ultrafiltration volume of 1500mLs. The post-dialysis serum urea was 171 mg/dl with a percentage reduction in urea being 34%. He developed profound sensorineural deafness immediately after the first session of haemodialysis. The otorhinology unit review of both ears suggested sensorineural deafness using Rinne's and Webber's tests. Pure tone audiometry done 3 days later showed no response at maximum presentation level.

Conclusion: This case highlights an uncommon complication associated with haemodialysis therapy.

**4. NAN/RRT/2016/04
OUTCOMES AND COMPLICATIONS ASSOCIATED WITH THE USE OF TEMPORARY
HAEMODIALYSIS CATHETERS IN A HOSPITAL-BASED DIALYSIS UNIT IN NIGERIA.**

Amira Christiana O, Bello Babawale T, Braimoh Rotimi W, Nwizu Chioma C

Nephrology Unit, Department of Medicine, College of Medicine, University of Lagos, Idi-Araba, Lagos

Introduction: Haemodialysis catheters are commonly used as temporary vascular access in patients with kidney failure who require immediate haemodialysis. The use of these catheters is limited by complications such as infections and thrombosis. We studied the complications and outcomes of non-tunnelled catheters used for temporary vascular access at our hospital's dialysis unit.

Methods: All patients with renal failure who were dialysed over a two year period and had double-lumen non-tunnelled catheters inserted were studied. Catheter insertion was under ultrasound guidance using the modified Seldinger's technique. The demographic data of patients, indications for catheter insertion, as well as complications and outcomes of these catheters were noted.

Results: Fifty-four patients aged between 8 and 79 years (mean: 43.7 ± 15.8), had 69 catheters inserted for a cumulative total of 4047 catheter-days. The mean catheter patency duration was 36.4 ± 37.2 days (range

1 -173 days). Catheter thrombosis was the most common complication and occurred in 40 (58%) catheters leading to catheter dysfunction. Thirty (43.5%) catheters were removed, 14 (20.3%) due to catheter malfunction, 8 (11.6%) due to infection, 3 (4.3%) due to physical damage, 5 (7.2%) elective removal.

Conclusion: Ultrasound guided temporary haemodialysis catheter insertion is safe and devoid of major complications. However thrombotic occlusion of catheters was a major limiting factor to catheter survival. Timely creation of arterio-venous fistula as long-term vascular access for haemodialysis will minimise dependence on catheters.

5. NAN/RRT/2016/05

HAEMODIALYSIS AT THE UNIVERSITY OF PORT HARCOURT TEACHING HOSPITAL: ONE YEAR ANALYSIS OF DATA

²*PE Fakrogha, V Ndu, M David-West, CM Wachukwu, PC Emem-Chioma, RI Oko-Jaja, DD Alasia, H Bellgam, FS Wokoma*

¹Department of Internal Medicine, Faculty of Clinical Sciences, College of Health Sciences, University of Port Harcourt, Nigeria

²Renal unit. Department of Internal Medicine, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria.

Introduction: The haemodialysis unit of the University of Port Harcourt Teaching Hospital serves as a catchment population for about five neighbouring states, in spite of a few private hospital based haemodialysis units. This is a review of haemodialysis services from January to December 2014, aimed at determining the spectrum of haemodialysis patients, challenges of care and complications.

Methods: This is a retrospective analysis of clinical records of haemodialysis patients during the one year period.

Results: Seventy six patients received haemodialysis. During the same period, 1043 medical and 149 renal admissions occurred giving a haemodialysis/medical admission rate of 7.3% and haemodialysis/renal admission rate of 51%. Mean age was 46±14.4 (10-78) years and M: F was 46/26(1.7:1). There were 8(10.5%) cases of AKI, 1(1.3%) acute on chronic kidney failure and 67(88.1%) ESRD. The dominant causes of AKI were toxic nephropathy (25%) and sepsis (12.5%). The primary renal disorders underlying ESRD were HTN (23.7%), DN (19.7%), CGN (18.4%) and obstructive uropathy (14.5%). The mean of parameters at entry were urea 26.9±10.6 (6-62.9) mmol/l, Scr 964.6±415.5(125- 2750)µmol/l and e-GFR 9.2±5.5(2-64)mls/min/1.73m². Total number of haemodialysis sessions was 355 with average of 4.7 dialysis sessions per patient per year. The 8 AKI patients achieved a total of 25 sessions, average of 2.9 sessions. Thirty four episodes of haemodialysis- related complications were recorded giving a complication rate of 9.6 %. Seven patients (9.2%), 5 males and 2 females, died during the period. Deaths were common amongst those with obstructive uropathy (71.4%), hypotension (57.1%) and seizures (28.5%).

Conclusions: The spectrum and distribution of haemodialysis patients in our center was similar to other centers in Nigeria. Fifty percent of renal admissions received haemodialysis and obstructive uropathy was the 4th leading cause of ESRD in this study population. Late presentation and grossly inadequate dialysis contributed to poor dialysis outcomes, high morbidity and mortality.

6. **NAN/RRT/2016/06**
KNOWLEDGE OF KIDNEY DONATION AMONG CARE GIVERS IN TWO TERTIARY HOSPITALS IN SOUTHWEST NIGERIA

*Adejumo OA¹, Solarin AU², Abiodun MT³, Akinbodewa AA¹, Iyawe OI**

¹Kidney Care Centre, University of Medical Sciences, Ondo

²Department of Paediatrics, Babcock University Teaching Hospital, Ilishan-Remo

³Department of Paediatrics, University of Benin Teaching Hospital, Benin

⁴Department of Internal Medicine, University of Benin Teaching Hospital, Benin

Introduction: One of the major challenges of kidney transplantation is shortage of kidney donors. Care givers (CGs) are potential kidney donors, but majority of them are unwilling to donate due to inadequate knowledge on kidney donation. This study evaluated the knowledge of kidney donation and its determinants among CGs in two tertiary hospital in South-west Nigeria

Methods: This was a cross-sectional study that was carried out in Kidney Care Centre (KCC), Ondo and Babcock University Teaching Hospital (BUTH), Ilishan-Remo using a self administered pretested questionnaire that assessed knowledge of kidney donation and its determinants. P-value of <0.05 was taken as significant.

Results: A total of 244 respondents participated in the study. Majority were below 40 years, married and females. The proportion of respondents with adequate knowledge of kidney donation was 63.4%. More respondents from BUTH compared to KCC had adequate knowledge of kidney donation. (80% vs 46.7%, $p = <0.001$). Similarly, the mean knowledge score was higher in respondents from BUTH. ($p = <0.001$). Significant factors associated with adequate knowledge of kidney donation were female gender, younger age, having relatives with CKD, higher social class and educational qualification. There was positive correlation between knowledge of kidney donation among the respondents and their willingness to donate kidneys, ($r = 0.439$, $p = <0.001$)

Conclusions: Knowledge of kidney donation was better among BUTH's respondents. Improving knowledge of kidney donation among the public may improve willingness to donate kidney which is key to successful transplant program.

Keywords: knowledge, care giver, kidney donation

7. **NAN/RRT/2016/07**
FACTORS ASSOCIATED WITH SURVIVAL BEYOND THREE MONTHS ON HAEMODIALYSIS IN PATIENTS WITH ENDSTAGE RENAL DISEASE IN SOKOTO, NIGERIA

Liman HM, Idris MA, Makusidi MA, Abdullahi I

Department of Medicine, Usmanu Danfodiyo University Teaching Hospital, Sokoto

Introduction: Haemodialysis remains an important modality of therapy for patients with endstagerenal disease. It serves as an important bridge until patients are able to get renal transplant. Survival on haemodialysis in some centres goes beyond thirty years while waiting for kidney transplant, while for most centres in Nigeria, survival is poor. We therefore set out to review our one month survival rate and factors associated with survival beyond one month of commencing haemodialysis.

Methods: We followed up a total of 210 randomly selected patients at commencement of haemodialysis over the entire their period of therapy. Data collected included biodata, presence of uraemic symptoms at commencement of therapy, urea, creatinine, electrolytes, PCV, hepatitis status, total number of haemodialysis sessions done, duration on haemodialysis and outcome of haemodialysis.

Results: A Total of 198 patients with endstage renal disease were followed up. Of these, Male were 120(60.1%), their mean age was 39.74+15.8 years (range 14-87). Mean duration on dialysis was 121.5 + days (range 1-2169). Mean number of dialysis sessions was 14 ± 28.18 (range 1-229). A total of 154 (77.8%) patients spent less than 90 days on haemodialysis, while 44 (22.2%) spent more than 90 days on haemodialysis. Out of 154 patients who spent less than 90 days on dialysis, 124 (62.6%) patients had issues with funding their dialysis, compared to 30(15.2%) (P value <0.0001). Duration on dialysis between the two groups was not influenced by age, sex, or clinical status at presentation.

Conclusion: Funding for dialysis remains the greatest barrier to sustaining dialysis in our endstage renal disease patients. Efforts aimed at subsidizing cost of dialysis will greatly improve the survival of patients with endstage renal disease in Nigeria.

**8. NAN/RRT/2016/08
PATTERN OF VASCULAR ACCESS IN THE RENAL UNIT AT THE UNIVERSITY OF
BENIN TEACHING HOSPITAL**

Ngokas¹, Okugbo S, Olorok A³, Okaka E³, Unuigbe E³, Ojogwu L³

¹Nephrology Unit, Department of Internal Medicine, Federal Medical Centre, Owerri, Imo State.

²Cardiothoracic Surgery Unit, Department of Surgery, University of Benin Teaching Hospital, Benin-city, Edo State.

³Nephrology Unit, Department of Internal Medicine, University of Benin Teaching Hospital, Benin-city, Edo State.

Introduction: Creation of vascular access for dialysis can be a major challenge. An access that functions optimally contributes to efficient haemodialysis (HD) and vascular access remains the Achilles heel of HD. The anticipated length of dialytic treatment, availability and affordability of catheters contribute to choice of catheters and type of access created. This study aimed to find out the pattern and problems of vascular access creation (excluding femoral catheterization) in patients seen at the Renal Unit of the University of Benin Teaching Hospital (UBTH).

Methods: This is a retrospective review of the case records of patients attended to had vascular access creation at the Renal Unit, UBTH between January 2009-Dec 2015 was carried out. Data collated from records included aetiology of kidney disease, type of access offered, need for repeat/alternative vascular access creation. Data was analyzed using SPSS version 21.0. Results are expressed as frequencies, percentages, and mean \pm SD; level of statistical significance was set at $p < 0.05$.

Results: One hundred and eighty-eight (188) patients had vascular access creation during the study period; they were made up of 116 males (61.7%) and 72 females (38.3%). Mean age of patient was 47.72 ± 15.59 years. Patients aged < 50 years and > 50 years made up 59% and 41% of the study population respectively. Aetiology of kidney disease was hypertensive nephrosclerosis (34.6%), chronic glomerulonephritis (23.9%), diabetic nephropathy (10.1%), HIV-associated nephropathy (6.4%), obstructive uropathy (4.3%), acute kidney injury (4.2%), ADPKD (3.2%), SLE (1.1%), sickle cell nephropathy (1.1%), analgesic nephropathy (0.5%) and toxic nephropathy (0.5%). Aetiology of kidney disease was unknown/undocumented is 10.1% of patients. Two hundred and twenty-nine (229) procedures made up of 188 first attempts and 41 repeat

procedures were carried out in the study group 140 procedures (61.1%) were in males and 89 (38.9 %) in females. Success rate of procedures was 78.7% and 82.9% respectively on first attempt and repeat procedure. The methods for access creation in this study included insertion of jugular catheter, subclavian catheter, tunnelled line and artero-venous fistula (AVF). Jugular catheter insertion was the most common procedure and was done in 154 (81.9%) patients, while tunnelled line was done in 18 (9.6%), AVF in 13 (6.9%) and subclavian catheter insertion in 3 (1.6%) of the patients. Failure at first attempt was highest with tunnelled line insertion (33.3%) and was 21% and 15.4% for jugular catheter insertion and AVF respectively. Of the 41 repeat procedures 33 (80.5%) was jugular catheter insertion, 5 (12.2%) was tunnelled line, 2(4.9%) and 1 (2.4%) were AVF and subclavian catheter insertion respectively. Whereas failure at second attempt was highest in AVF (50%), followed by right jugular catheter insertion(20.7%); the success rates at second attempt was 100% and same for tunnelled line insertion, left jugular and subclavian catheter insertions.

Conclusion: Vascular access malfunction is one of the significant causes of morbidity and mortality amongst end-stage renal disease patients. Although, other forms of vascular access beside femoral catheterization, limited skills remains a major limitation.

9. NAN/RRT/2016/09

BORTEZOMIB AS A RESCUE AGENT IN A RESOURCE RESTRICTED SETTING- A CASE REPORT

*Umeizudiketi¹, Awobusuyi JO, Amisuma**

Nephrology Unit, Department of Medicine, Lagos State University Teaching Hospital, Ikeja, Lagos State.

The optimal treatment option for chronic kidney disease stage (CKD) 5 or end stage renal disease (ESRD) is kidney transplantation (KT) (1). After KT, other hurdles are faced by the patients and nephrologists. One of such is the diagnosis and treatment of rejection episodes. The diagnosis of rejection is based on clinical features and laboratory investigations. One of the indications for kidney biopsy is a rise of more than 20% in serum creatinine; also, a kidney biopsy adds to the diagnostic acumen when assessing a patient for rejection episodes (2). Rejection can be classified as acute or chronic, as well as cell mediated (ACR) or antibody mediated (AMR). Treatment of AMR often presents some difficulty and probably may be one of the causes of chronic allograft nephropathy (3). Agents used for AMR treatment includes: intravenous immunoglobulin, anti-thymocyte globulin (ATG), plasmapheresis, rituximab and bortezomib (3). This case report highlights the role of bortezomib in the treatment of AMR in a resource restricted setting. The care of kidney transplant recipients (KTR) can be a daunting experience when there is limited diagnostic and therapeutic armamentarium. We present the case of a 47 year old man who received a kidney transplant (KT) from a living donor in three years ago but defaulted to follow up. He thereafter presented 18 months later with features of antibody mediated rejection (AMR). He received methylprednisolone and bortezomib for AMR treatment with some reversal of AMR. His serum creatinine prior to AMR treatment was 22.4 mg/dl and reduced to 4 mg/dl on completion of therapy. Though graft function was partially normalized, the improvement in graft function goes a long way to show case bortezomib as a vital agent in treating AMR.

10. NAN/RRT/2016/010

TRANSPLANT TOURISM AMONGST NIGERIAN PATIENTS: DO THE BENEFITS TRULY OUTWEIGH THE RISKS?

Amira Christiana Oluwatoyin, Bello Babawale Taslim, Orolu Muyideen Oluyemi

¹Nephrology Unit, Department of Medicine, College of Medicine, University of Lagos, Idi-Araba, Lagos.

Nephrology Unit, Department of Medicine, College of Medicine, University of Lagos, Idi-Araba, Lagos. Nephrology Unit, Department of Medicine, Lagos University Teaching Hospital, Idi-Araba, Lagos.

Introduction: Transplant tourism is the term used to describe travel outside one's country of abode for the sole purpose of obtaining organ transplantation services. This study describes the characteristics and outcomes of kidney transplant tourists who were followed up in our institution.

Methods: A retrospective study of patients who underwent kidney transplantation outside the country and were followed up in our institution between January 2007 and September 2015. Patients were included in the study if they had completed one year follow-up or died or lost their allograft prior to completing one year follow-up. We describe the complications and clinical outcomes.

Results: Twenty six patients were followed-up; 19(73.1%) males, mean age was 40.5 ± 10.3 years. Majority (76.9%) of the transplants were carried out in India and 53.9% had living unrelated donors. The median time between transplantation and initial follow-up visit was 8 weeks (range: 3 days - 28 weeks) while the median duration of follow-up was 3.8 years (range: 1 to 8years). Complications encountered were infections in 11(42.3%) patients, chronic allograft nephropathy in 8 (30.8%), post-transplant diabetes in 6 (23.1%), biopsy-proven acute rejections in 3(11.5%), primary non-function in 2 (7.7%). One-year actual graft survival was 80.8% and one-year patient survival was 84.6% compared with 83.2% and 90.2% for patients transplanted within Nigeria.

Conclusions: Kidney transplant tourism is still common place among Nigerian patients with end-stage renal disease. Short term graft and patient survival were poorer than values recommended for living kidney transplants. We therefore advise that transplant tourism be discouraged in Nigeria given the availability of transplant services in the country.

SCIENTIFIC SESSION B3

**1. NAN/MISC/2016/01
MANAGEMENT OF OBSTRUCTIVE NEPHROPATHY: 5-YEAR EXPERIENCE**

Muhammad AS, Abdulwahab-Ahmed A, Agwu NP, Khalida A, Alhassan A, Mungadi IA
Urology unit, Department of Surgery, Usmanu Danfodiyo University Sokoto

Introduction: Obstructive nephropathy is common among patients with urinary tract obstruction. It can be managed with urinary diversion and continuous bladder drainage or dialysis before definitive treatment. Rarely, it progress to end-stage renal disease (ESRD) which can only be cured by renal transplantation, as definitive treatment of the cause alone will not restore the renal function. We present our 5-year experience in the management of obstructive nephropathy at urology unit, department of Surgery, Usmanu Danfodiyo University Teaching Hospital Sokoto.

Methods: This is a retrospective 5-year review of patients with obstructive uropathy and azotemia managed from January 2011 to January 2016. Data was collected via a structured proforma. Data analysis was done using IPSS 20.0 version for windows. Results were reported in percentages and means \pm standard deviation.

Results: There were 106 patients with obstructive nephropathy with mean age of 48.34 ± 17.37 years. There were 96 males (89.70%) and 10 females (9.30%). One hundred and three patients (96.23%) had Chronic Kidney Disease (CKD), while 4 patients (3.77%) had Acute Kidney Injury (AKI). Bladder cancer was the commonest cause of nephropathy and occurred in 52 patients (49.06%), followed by Benign Prostatic Hyperplasia with 24 patients (22.64%). Other causes include urolithiasis (8.49%), ureteral obstruction (7.55%), urethral stricture (4.72%), carcinoma of the prostate (3.77%), bladder injury and posterior urethral valve (1.88%) each. Urinary diversion and continuous catheter drainage was done for 27 patients (25.5%), haemodialysis in 10 patients (9.4%), peritoneal dialysis in 1 patient (0.9%), while 40 patients (37.7%) died of CKD before dialysis and 28 patients (26.42) were lost to follow up or signed against medical advice due to financial constraints. Definitive treatments were done for only 18 patients (16.98%). These include ureteroscopy + lithotripsy (1.9%), ureterolithotomy (0.9%), cystolithotomy (0.9%), uretero-neocystostomy (2.8%), bladder repair (1.9%), urethroplasty (1.9%), bilateral orchidectomy (0.9%), pyeloplasty (0.9%), transvesical prostatectomy (0.9%), transurethral resection of the prostate (1.9%), posterior urethral valve ablation (0.9%) and nephrectomy (0.9%). Three patients (3.77%) developed ESRD and were later lost to follow up.

Conclusion: Bladder carcinoma and Benign Prostatic Hyperplasia are the commonest cause of obstructive nephropathy in our practice. About 70.0% of our patients died or are loss to follow up before urinary diversion or dialysis on financial grounds.

2. NAN/MISC/2016.02

**HIGH PREVALENCE OF PRE-HYPERTENSION AND HYPERTENSION IN IBADAN:
REPORT OF WORLD KIDNEY DAY SCREENING PROGRAMS.**

Coker JM¹, Bello OT, Jinadu YO¹, Raji YR², Ademola AD³, Ajayi SO², Asinobi AO³, Salako BL², Arije A², Kadiri S².

¹Nephrology Unit, University College Hospital, Ibadan, Oyo state, Nigeria.

²Nephrology Unit, Department of Medicine, College of Medicine, University of Ibadan, Ibadan, Oyo State.

³Nephrology Unit, Department of Paediatrics, College of Medicine, University of Ibadan, Ibadan, Oyo State.

Introduction: Burden of hypertension among the black is enormous, late detection and poor management results in various acute and long term complications. In particular, there is high prevalence of cardiovascular events such as stroke, ischaemic heart disease and heart failure resulting from uncontrolled hypertension in low and medium income countries. As part of strategies to reduce the burden of hypertension, various hypertension guidelines have included pre-hypertension category in the management of hypertension. The seventh joint national committee on prevention, detection, evaluation and treatment of high blood pressure (JNC7) defined pre-hypertension as systolic blood pressure (SBP) 130 - 139mmHg and or diastolic blood pressure (DBP) of 80 - 89mmHg. Pre-hypertension apart from being a risk factor for hypertension also predisposes the patients to cardiovascular diseases when compared to individuals with normal blood pressure. JNC 7 and European Society of Cardiology and European Society of Hypertension (ESC-ESH 2007) have both recommended treatments of pre-hypertension. Despite this, most individuals with pre-hypertension are not diagnosed early until they have developed hypertension or its cardiovascular complications. Thus the world kidney day (WKD) screening programs offer a good opportunity for early diagnosis and offer

treatments. We determined the prevalence of pre-hypertension and hypertension among adult participants of the World Kidney Day

Methods: This is a cross sectional survey of adult participants of the yearly world kidney day screening programs organized by the adult and paediatric nephrology units of the University College Hospital, Ibadan over a 5 year period. The current review is between years 2010 - 2014. Pre- program sensitization was carried out through posters, banners and announcement on the local radios and televisions. Interviewers administered questionnaires were administered to all participants, information obtained include biodata, lifestyle and history of chronic illnesses. Anthropometric measurements taken include weight, height, waist and hip circumferences. Systolic and diastolic blood pressures were obtained in sitting position using Accusson sphygmomanometer. Random plasma glucose was determined using one-touch glucometer and strip while 10ml of urine sample was obtained and 10-point urinalysis was carried out using combi 10 urinalysis strips. Statistical analysis was carried out using SPSS version 20.

Results: A total of 1194 adults took part in the screening programs over the 5 year period, 656 (54.9%) females and 438 (45.1%) males participated in the screening programs. The mean age of participants was 40.8 ± 14.2 years. Pre- hypertension and hypertension were reported in (5.1%) and 307 (28.3%). Two hundred and sixty-eight (87.2%) were not aware of the hypertension or pre-hypertension status. Prevalence of pre-hypertension across the 5 years are 2010 (6.3%), 2011 (4.2%), 2012 (6.2%), 2013 (7.8%) and 2014 (3.8%). Prevalence of hypertension across the 5 years are 2010 (23.1%), 2011 (28.2%), 2012 (15.8%), 2013 (31.1%) and 2014 (48.6%).

Conclusions: There is high prevalence of pre - hypertension and hypertension among participants of world kidney day screening program. Most individuals with pre-hypertension and hypertension were not aware of the diagnosis and were not on any treatment. Community based screening programs and awareness of hypertension should be on regular basis rather than yearly screening programs.

3. NAN/MISC/2016/03

PREVALENCE OF CHRONIC KIDNEY DISEASE AND ITS RISK FACTORS AMONG ADULTS IN A RURAL POPULATION OF ABIA STATE SOUTHEAST NIGERIA

Okwuonu CG¹, Chukwuonye II¹, Ojogwu LI²

¹Department of Internal Medicine, Federal Medical Centre Umuahia, Abia State

¹Department of Internal Medicine, University of Benin Teaching Hospital, Benin-City Edo State

Introduction: Chronic kidney disease (CKD) is an increasingly prevalent problem worldwide. Prevention is of paramount importance and this is possible through early detection. We set to determine the prevalence of CKD, some of its risk factors, and its correlates among adults in a rural population of Abia State.

Methods: A cross-sectional study involving 400 randomly selected adults aged 18 years and above in Olokoru, Umuahia South LGA of Abia State. History regarding health status was obtained through interviewer-administered questionnaires. Participants had their biophysical profile measured. Urine for protein-creatinine ratio (PCR) estimation and serum creatinine for estimation of glomerular filtration rate (GFR), among other parameters, were obtained. A PCR > 200mg/g was regarded as significant proteinuria while GFR < 60mls/min/1.73m² was regarded as reduced GFR. Participants with abnormal PCR and/or reduced GFR had their eGFR/PCR repeated after three months. CKD was defined as persistent significant proteinuria and/or reduced GFR for more than 3 months.

Results: Complete data was available for 328 participants. Persistent significant proteinuria was found in 19 (5.8%) while persistent reduction in GFR was obtained in 15 (4.6%) of participants. Overall, CKD was found in 25 (7.8%) of the participants. Some risk factors obtained included old age (36.3%), male sex (42.4%) and hypertension (36.9%). The independent risk factors for CKD included old age, family history of kidney disease, hypertension, generalized obesity, and truncal obesity.

Conclusion: Chronic kidney disease and its risk factors were prevalent in this rural Nigerian community. There is need to institute measures for curbing the rising trend of CKD in Nigeria.

4. NAN/MISC/2016/04

URINE DIPSTICK FINDINGS IN ASYMPTOMATIC ADOLESCENTS IN SOKOTO METROPOLIS

¹Isezuo KO, ¹Jiya NM, Ibitoye PK, Miya FB, Adamu A, Ugege MO

Department of Paediatrics, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria

Introduction: Urine tract disorders are usually asymptomatic in early stages but may be detected by dipstick urinalysis which is a simple cost effective way of screening. During adolescence, there is double burden of childhood problems and increase in adult diseases. Information on abnormal urinalysis findings may help in planning of screening and preventive programs. We aim to determine the pattern of abnormal urinalysis amongst asymptomatic adolescents in Sokoto metropolis.

Methods: Four hundred and twenty-six (426) students aged 10 to 18 years were selected through multi-stage sampling in a descriptive cross sectional study and 393 of them had their urine tested between April and July 2014 with dipstick test strips by Bayer, Pic. Their blood pressure, body mass index and socioeconomic status were documented.

Results: There were 166 males and 227 females (M: F = 0.73:1). Their mean age was 14.6 ± 2.0 years. Abnormal urine findings occurred in 29.8%. The prevalence of proteinuria, haematuria, combined proteinuria/haematuria, nitrituria, and leucocyturia was 7.6%, 4.1%, 6.1%, 12% and 3.1%. Occurrence was higher in the 14-16 year age group but not significant. Proteinuria and nitrituria were higher in females while hematuria was more in males though none were significant. All the urine abnormalities were more frequent in those of lower socioeconomic class ($p < 0.01$).

Conclusion: It was concluded that urine abnormalities are common amongst asymptomatic adolescents.

5. **NAN/MISC/2016/05**
PREVALENCE AND PATTERN OF CKD AND ITS ASSOCIATED RISK FACTORS IN
AIYEPE COMMUNITY OF OGUN STATE

¹Oyebisi OO, 'Jaiyesimi AEA, Akinsola W, Sanusi AA, Arogundade FA, Okunola OO
Department of Medicine, Olabisi Onabanjo University Teaching Hospital, Sagamu, Ogun State
Department of Medicine, Obafemi Awolowo University Teaching Hospital, Ile-ife

Introduction: Chronic kidney disease (CKD) is fast becoming a disease of public health importance. The rise in the population of patients with ESRD is partly related to the failure of early detection of the preclinical stages of CKD and its associated risk factors. In Nigeria and indeed most sub-Saharan Africa, there is no reliable prevalence data due to the lack of renal registry. The study was set out to determine the prevalence and pattern of CKD and its associated risk factors in a semi-urban community in Ogun state. The knowledge and awareness of the participants was also determined.

Methods: A cross sectional community based study with a total of 468 participants recruited. Cluster sampling technique was used. A structured questionnaire was used to get information on socio-demography and knowledge of kidney disease including the risk factors. The eGFR was estimated using CG formula and the participants were screened for proteinuria. ACR was done for those without overt proteinuria. The prevalence of CKD and its associated risk factors was determined including the level of awareness of the participants.

Results: The study population was 468 subjects of which male constitutes 165 representing 35.3%. The mean age \pm standard deviation (SD) of the study population was 48.09115.725. Male and female mean age are 47.65 ± 17.11 and 48.32 ± 14.94 respectively. About 70% of the participants fall between ages 20 and 60years. Females had statistically significant higher level of education than males ($\chi^2=22.173$, p 0.000). The prevalence of hypertension and diabetes were 28.9% and 4.3% respectively.. The prevalence of CKD in this study was 24.3%. Age (OR= 0.090, 95% CI, 1.121-1.067) weight (OR = -102, 95% CI, 0.951-0,858) and dyslipidaemia (OR = -0.618, 95% CI, 0.964-0.301) were found to be predictive on logistic regression.

Conclusion: The awareness of CKD in the community is good but the prevalence of CKD mainly at preclinical stage is alarming. All efforts must be geared toward more education and preventive strategy.

6. NAN/MISC/2016/06

PREVALENCE AND CLINICAL CORRELATES OF OBSTRUCTIVE UROPATHY AMONG ADULT CHRONIC KIDNEY DISEASE PATIENTS IN JUTH

Gimba ZM, Ojo SO, Oyenuche C, Uchendu GD, Agbaji OO, Agaba El

Renal unit, Dept of Internal Medicine, Jos University Teaching Hospital, Jos, Plateau State

Introduction: Chronic kidney disease (CKD) affects about 10% of the population worldwide with increased morbidity and mortality. Obstructive uropathy (OU) is one of the causes of CKD and occurs when structural or functional changes occur in the urinary tract that impedes normal urine flow. We aim to determine the prevalence of OU among CKD patients in JUTH and clinical correlates associated with it.

Methods: This is a cross sectional descriptive study carried out in JUTH from August 2011 to September 2012, involving 230 CKD patients that were recruited consecutively. History, physical examination and laboratory investigations (serum creatinine, serum calcium, serum phosphate, haemoglobin and intact parathyroid hormone) were performed on all patients.

Results: There were 104 female and 126 male subjects with mean age, BMI, systolic blood pressure of 44.15 years, 24.44 kg/m², and 146.28 mmHg respectively while estimated glomerular filtration rate (eGFR) had a median and range of 11.54 (2.34-71.49) ml/min/1.73m². The prevalence of OU was 6.1% accounting for the 4 commonest cause of CKD in the population. Patients with OU were less likely to develop anaemia as was seen in 57.1% of patients with OU having anaemia compared to 82.9% of CKD patients without OU (OR 0.27 95% CI 0.09-0.84). There were however no significant association between OU and hypocalcaemia, hyperphosphataemia, secondary hyperparathyroidism and severe renal impairment.

Conclusion: OU is the fourth commonest cause of CKD in our environment and is also associated with a reduced tendency to developing anaemia.

7. **NAN/MISC/2016/07**

PRELIMINARY REPORT ON MICROALBUMINURIA SCREENING AMONGST HIV INFECTED CHILDREN SEEN AT UDUTH, SOKOTO

Isezuo KO, Yusuf T, Jiya FB, Ibitoye PK, Abdulrahman MB, Hano IJ, Kangiwa LH, Abubakar F

Department of Paediatrics, Department of Chemical Pathology, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria

Introduction: Microalbuminuria (MA) is considered to be an early precursor of renal disease in HIV (human immunodeficiency virus) infection. Screening for this marker and measures to halt progression are being advocated in the care of these patients. We set to determine the prevalence and factors associated with MA amongst HIV infected children seen in UDUTH, Sokoto.

Methods: Fifty-three (53) HIV infected children (aged 3 to 16 years) were selected in a descriptive cross sectional study from May to July 2015. Those with febrile illnesses, symptoms of urine tract infection and kidney disease were excluded. Their demographic data, anthropometry, blood pressure, ARV treatment details, and CD4 levels were recorded. Spot urine samples were tested by dipstick analysis and negative samples were further tested for MA using semi-quantitative Micral test strips. Data was analyzed with SPSS 20, while significance was at < 0.05 .

Results: There were 29 males and 24 females; 92.5% of them were on ARVs with mean duration of 5 years. Abnormal dipstick urine findings occurred in eighteen (34%), and bilirubinuria was most frequent in 13.2%. Those with negative dipstick analysis were tested for MA which was positive in 45.7%. The presence of MA was not related to the stage of the disease, CD4 levels, duration of ARV therapy, blood pressure nor body mass index.

Conclusion: It was concluded that semi-quantitative MA was high among the population and quantitative tests may be better in screening for nephropathy in infected children.

**8. NAN/MISC/2016/08
PREVALENCE OF HYPERTENSION AMONG ADOLESCENTS AND ADULTS IN RURAL
ETSAKO, EDO STATE.**

Ahmed SD¹, Bankole IA,¹ Rafiu MO¹, Unuigbe EI¹

Irrua Specialist Teaching Hospital, Irrua Edo State University of Benin Teaching Hospital, Benin city,
Edo state

Introduction: Hypertension is a leading cause of morbidity and mortality worldwide. Once thought a problem only in affluent societies, hypertension is currently a global problem and increasing prevalence in less developed countries depicts a significant public health problem with associated socio-economic impacts. The present study aims to assess the prevalence of hypertension among aduiltrural dwellers living in Ayua and South Ibie communities in Etsako West local government council, Edo State.

Methods: The study was a community-based cross-sectional study, conducted in March 2015 in Etsako, Edo state. Participants aged 15 years and above were recruited for this study. Trained interviewers collected demographic data. Additionally, blood pressure (BP), weight and height of participants were measured following standard procedures. Hypertension was defined as a systolic blood pressure (SBP) > 140 mmHg and diastolic blood pressure (DBP) >90 mmHg. Data was analyzed by SPSS version 16.

Results: A total of 386 participants with a mean age of 51.2 ± 17.9 years were included in this study. About two third (65.3%) of the participants were females. The overall prevalence of hypertension was 36.5% (141/386), of which 84 (59.6%) were females. Only 34 (24.1%) of the participants with hypertension were aware of their raised blood pressure. The highest prevalence of hypertension was in the elderly (age > 65 years) and age standardized prevalence of hypertension was 62.4%. Twenty nine percent of the participants were classified as overweight (BMI > 25) and 25.8% as obese (BMI > 30), while among the hypertensive participants 29.1% and 41.1% were overweight and obese respectively.

Conclusions: The prevalence of hypertension and associated obesity is high in the population group and more than two third of persons with hypertension are unaware of their hypertension, reflecting a high burden of undiagnosed hypertension in this rural community.

9. **NAN/MISC/2016/09**
RISK FACTORS FOR CHRONIC KIDNEY DISEASES AMONG CIVIL SERVANTS IN
ABDULKAREEM LAFENE SECRETARIAT MINNA, NIGER STATE

Umar IA, Waziri Bala, Sojemo

Department of medicine Ibrahim Badamasi Babangida Specialist Hospital Minna

Introduction: The burden of chronic kidney diseases is enormous globally and in particular amongst the black race. The cost of managing chronic kidney diseases is far beyond the reach of most families. Hypertension, Diabetes mellitus, obesity and proteinuria are recognized risk factors for the development of chronic kidney diseases worldwide. This study was carried out to determine the risk factors for chronic kidney diseases among the civil servants in Abdulkareem Lafene secretariat Minna.

Methods: This was a descriptive cross sectional study involving 760 participants. An interviewer administered structured questionnaire, clinical evaluation, and laboratory investigations were used for data collection. Data was analysed using SPSS version 20.

Results: A total of 811 participants were screened out of which 760 participants had complete data. Majority were male 546 (71.7)%. The mean age was 41.18 ± 10.11 years while systolic and diastolic blood pressures and Body Mass Index were 126.98 ± 17.96 (mmHg), $82.30 \pm (13.83)$ mmHg and 29.45 ± 78.55 (kg/m²) respectfully. Systolic and diastolic blood pressures accounted for 193 (25.4)% and 271 (35)%. The prevalence of hypertension was 295 (38.82) %. 14.8 % of the participants had proteinuria while glycosuria was found in 10.7 % . Persistent ingestion of painkillers and herbal medications are common practices among participants 467 (61.4) % and 422 (55.5) % respectively.

Conclusion: Global recognized risk factors for chronic kidney diseases were common amongst the participants, abuse of painkillers and ingestion of herbal medicines are high among the participants.

**10. NAN/MISC/2016/10
SCREENING FOR PROTEINURIA AND CHRONIC KIDNEY DISEASE RISK FACTORS
IN OGHARA, NIGERIA: A WORLD KIDNEY DAY 2014 STUDY.**

Okoye OC, Idenigbe I, Kweki GA.

Delta State University Teaching Hospital, Oghara.

Introduction: CKD is a global public health problem with great burden and extremely high cost of care in developing countries. The risk factors associated with CKD such as hypertension, diabetes and obesity

remain prevalent globally, resulting in a worldwide CKD growth rate of 8%. Screening for CKD and its' risk factors is recommended for high-risk population.

This study aimed to determine the risk factors of CKD in a rural community in Delta state, Nigeria

Methods: A cross-sectional survey was conducted in the teaching hospital premises at Oghara after a public awareness talk delivered to both staff of the hospital and community members. A total of 135 subjects were interviewed and the following measurements were performed: blood pressure, body mass index, blood glucose, dipstick urine protein, serum creatinine and eGFR usingCKD-EPI.

Results: Mean age was 40 13.6 year and 69.6% of participants were in the young age group. Male to female ratio was 1:4. The mean body mass index, random blood glucose, serum creatinine were 26.7 4.9 Kg/m', 103 23.4mg/dl and 1.6 2.9 mg/dl respectively. The prevalence of proteinuria was 4.4% while 10.7% of all subjects had reduced kidney function (GFR <60ml/min).

Although 11.1% of participants were known hypertensives only 6.7% had high blood pressure on screening. Other risk factors identified were Diabetes mellitus (6.7%), family of history hypertension (14.1%), family of history diabetes (9.6%), family of history chronic kidney disease (1.5%) and obesity (20.7%). Proteinuria, age >50years and family history of hypertension were significantly associated with reduced renal function.

Conclusions: This study indicates that the risk factors for CKD are common in the population. The prevalence of high blood pressure is reduced in this population compared to earlier reports. Dipstick proteinuria is useful and a significant risk factor of CKD. Community screening for the risk factors of CKD is realistic and should be encouraged as a public health priority.