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001

DIABETES & STROKE HOSPITALIZED PATIENTS IN 2006: AN ANALYSIS OF HEALTHCARE COST BY RACE AND GENDER

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Objective. Examine racial and gender differences in healthcare cost of Tennessee stroke patients with or without diabetes in 2006.

Background. Previous studies have examined the role of diabetes mellitus (DM) in the onset of stroke and its subsequent management. Impact of diabetes on healthcare cost of stroke patients remains unknown. We, therefore, examined three issues: (1) Do diabetic patients have a higher rate of stroke? (2) What is the effect of diabetes on stroke inpatient and total healthcare cost & does the cost vary by race & gender? (3) Do cost trends found in 2004 remain the same in 2006?

Methods. Data of Tennessee stroke patients (N=18,847; aged 35+) were extracted pertaining to stroke (ICD-9 codes 430–438), diabetes (type 1 + 2), race, gender, hospital days, stroke-related treatment cost, and total healthcare cost. The stroke sample included 55% females and 83% whites. DM was higher among stroke patients (32.2%) than non-stroke patients (24.9%; P<.000). Comparisons of diabetic stroke patients (DSP; n=5,077) with non-diabetic stroke patients (NDSP; n=12,770) were completed using analysis of variance and chi square tests.

Results. Average stroke treatment cost for DSP was higher by 3% compared to NDSP ($28,732 vs $28,044). However, the difference in total healthcare cost was much larger (38%) between DSP & NDSP groups ($62,598 vs $45,344, P<.000). Total average cost was also higher among AA patients compared to Whites both in DSP ($81,838 vs 57,072, P<.001) and NDSP groups ($57,883 vs $43,324, P<.001). Finally, the highest healthcare cost emerged for AA males in the DSP group and was 43% higher than White DSP male peers.

Conclusion. Higher treatment cost among DM stroke patients suggests the need for early and aggressive treatment of DM and other co-morbid risk factors, especially among African Americans.

002

BLOOD PRESSURE AND HYPERTENSION AMONG DUTCH AFRICANS, SOUTH ASIANS, BRITISH AFRICANS AND SOUTH ASIANS: A CROSS NATIONAL COMPARATIVE STUDY

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Objective. Evidence suggests different patterns of BP and hypertension among different ethnic groups. This may relate, in part, to the differences in residing countries' socioeconomic position (SEP), health behavior and quality of health care. We examined cross-national differences in BP and hypertension between the UK ethnic groups and their corresponding Dutch ethnic groups.

Methods. We used similar population based studies from the UK and the Netherlands.

Results. Compared with Dutch South Asians, the UK South Asian men and women had lower BP and prevalence of hypertension except for systolic BP in Indian men. Among Africans, the systolic BP did not differ, but the diastolic BP levels were lower in the UK African Caribbean and Sub-Saharan African men and women than in their Dutch African Surinamese counterparts. African Caribbeans had a lower prevalence of hypertension than African Surinamese. Among Europeans, compared with Dutch, British and Irish men and women had higher systolic BP levels, but lower diastolic BP levels except for systolic BP in Irish men. There were no differences in the prevalence of hypertension between the European groups. Except for hypertension in Hindustani and Indian men, all the differences persisted after adjusting for SEP and lifestyle and body sizes in all ethnic groups. Control rates were substantially higher among UK African and South Asian (except Indian) hypertensives than among their Dutch counterparts.

Conclusion. These data indicate marked variations in BP and hypertension prevalence between comparable ethnic groups in the UK and the Netherlands. Poor hypertension control among Dutch South Asian and African Surinamese contributed to their relatively high BP levels.

003

EFFICACY OF THE VASODILATING, SELECTIVE B-BLOCKER NEBIVOLOL AS AN ADD-ON TO OTHER ANTIHYPERTENSIVES IN OBESE PATIENTS

K FERDINAND

Objectives. Obesity is a major risk factor for hypertension, which is difficult to control in obese patients, often requiring combination therapy. The current analysis evaluated the efficacy of nebivolol, a cardioselective β1-blocker with nitric-oxide–mediated vasodilating effects, added to other antihypertensives in obese (body mass index [BMI] ≥30) hypertensive patients.

Methods. Adults with stage I–II hypertension (mean sitting office diastolic BP [SiDBP] ≥90 mm Hg and ≤109 mm Hg) receiving a stable antihypertensive treatment regimen consisting of ≥1 but ≤2 of an angiotensin-converting enzyme inhibitor, angiotensin II receptor blocker, or diuretic were randomized to once-daily nebivolol (5, 10, or 20 mg) or placebo in a 12-week, double-blind, multicenter trial. Patients with BMI >35 were excluded. Efficacy endpoints included the baseline-adjusted mean change in trough SiDBP (primary) and sitting systolic BP (SiSBP; secondary).

Results. 669 patients comprised the intent-to-treat population, of whom 197 (29.4%) were Black, and 351 (52%) were obese. Treatment groups were matched for age, gender, race, diabetes status, BMI, and use of antihypertensive medications. In the obese subgroup, baseline mean SiSBP/SiDBP was 146.2/96.5 mm Hg. At Week 12, mean change from baseline was −1.1±11.9/−3.2±8.8 mm Hg for placebo (n=81) vs −8.7±13.5/−6.4±8.3, −6.6±15.5/−7.5±8.8, and −8.5±15.3/−8.9±8.2 mm Hg for nebivolol 5 mg (n=92), 10 mg (n=89), and 20 mg (n=89), respectively (P<0.001 vs baseline and P<0.02 vs placebo for all nebivolol doses).

Conclusions. Nebivolol 5–20 mg once-daily as add-on therapy produced a robust BP-lowering effect in obese hypertensives, approximately one-third of whom were Black.

004

EFFECT OF NEBIVOLOL IN OBESE AFRICAN AMERICAN PATIENTS WITH HYPERTENSION

K FERDINAND

Objectives. Nebivolol, a cardioselective β1-blocker with vasodilating effects, given once-daily as monotherapy effectively lowered blood pressure (BP) in African American (AA) hypertensives in a previously reported randomized, controlled trial (RCT). Since obesity is highly prevalent in this patient group, we examined the BP-lowering effects of nebivolol 5–20 mg once-daily (the doses commonly used in clinical practice) in the subgroup of patients with body mass index (BMI) ≥30.

Methods. Adult AAs with stage I–II hypertension (mean sitting office diastolic BP [SiDBP] ≥95 mm Hg and ≤109 mm Hg) were randomized to nebivolol (2.5–40 mg once-daily; n=251) or placebo (n=49) in a 12-week, double-blind, multicenter RCT. Patients with BMI >40 were excluded. The primary efficacy endpoint was the baseline-adjusted mean change in trough (24±2 hr post-previous morning's dose) SiDBP.

Results. A total of 300 AA patients comprised the intent-to-treat population (mean SiDBP, 100.2±4.4 mm Hg; mean BMI, 30.5±5.2), of whom 156 had BMI ≥30. Mean change from baseline in SiDBP in obese AA patients was −5.6±9.6 for placebo (n=28) vs −9.2±7.1, −11.8±9.0, and −7.2±7.7 for nebivolol 5 mg (n=24), 10 mg (n=25), and 20 mg (n=25), respectively. The decreases from baseline were statistically significant for nebivolol 10 mg and 20 mg compared with placebo (P<.05).

Conclusions. Nebivolol 5–20 mg once-daily as monotherapy produced a robust BP-lowering effect (P<.05 for nebivolol 10 mg and 20 mg) in obese AA hypertensives, a group at high risk of cardiovascular disease and in whom treatment with conventional β-blockers is often suboptimal.

005

ETHNIC DIFFERENCES IN RESPONSE TO INITIAL TREATMENT WITH VALSARTAN MONOTHERAPY OR COMBINATION VALSARTAN/HYDROCHLOROTHIAZIDE (HCTZ) IN PATIENTS WITH STAGE 2 HYPERTENSION

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Only 36.3% of African Americans (AA) achieve blood pressure control despite high levels of awareness. Previously, The Valsartan-Managing blood pressure Aggressively and evaluating Reductions in hsCRP (Val-MARC) trial comparing valsartan (V) to valsartan + hydrochlorothiazide (V/HCTZ) as initial therapy for stage 2 hypertension patients reported rapid and significantly greater BP reductions in patients receiving V/HCTZ vs V. A total of 1668 patients were randomized to V160 mg (n=836; AA=190) or V/HCTZ 160/12.5 mg (n=832; AA=202) with force-titration to V 320 mg or V/HCTZ 320/12.5 mg at Week 2 and optional addition of HCTZ 12.5 mg at Week 6. In this post-hoc analysis, the effect of race on treatment response was evaluated. A total of 73% AA vs 57% Caucasian (C) with initial monotherapy received optional HCTZ, while 49% AA vs 39% C with initial V/HCTZ received additional HCTZ. Four subgroups were analyzed: Initial V 160 → 320 mg (n=242;AA=28); Mono up-titrated V 320/12.5 mg (n=377; AA=101); Initial V/HCTZ 160/12.5 mg → 320/12.5 mg (n=360; AA=64); and Combo-up-titrated V 320/25 mg (n=256; AA= 73). The mean change from baseline in systolic BP at Week 2, 6 and 12 are shown below. BP lowering was similar in AA and C on monotherapy at week 6. However, in AA on initial V/HCTZ, similar BP lowering as with C was observed at week 12 after optional addition of HCTZ. High-dose combination therapy was required to achieve similar BP response in AA and C in difficult to treat patients.

Change in mean SBP from baseline (mm Hg) [95%CI]	African Americans (AA)			Caucasians (C)		
	Wk 2	Wk 6*	Wk 12	Wk 2	Wk 6*	Wk 12
Initial V 160 → 320 mg	−16.3 [−22.9, −9.7]	−33.8 [−40.0, −27.7]	−23.6 [−30.3, −16.9]	−22.1 [−24.1, −19.9]	−32.9 [−34.8, −30.9]	−27.1 [−29.5, −24.7]
Mono up-titrated (optional HCTZ12.5 mg)	−7.5 [−10.4, −4.5]	−7.2 [−9.9, −4.4]	−20.4 [−23,9, −17.0]	−12.3 [−14.0, −10.5]	−12.3 [−14.0, −10.7]	−23.1 [−25.0, −21.2]
Initial V/HCTZ 160/12.5 mg → 320/12.5 mg	−26.6 [−30.4, −22.9]	−33.9 [−37.0, −30.7]	−29.6 [−33.6, −25.5]	−26.4 [−28.4, −24.3]	−37.5 [−39.3, −35.6]	−32.6 [−34.7, −30.6]
Combo-up-titrated (optional HCTZ)	−15.2 [−18.9, −12.0]	−11.2 [−14.6, −7.8]	−23.8 [−27.7, −19.8]	−17.1 [−19.4, −14.7]	−15.6 [−17.9, −13.4]	−24.8 [−27.3, −22.1]

* optional titration received at Wk 6 if SBP/DBP ≥140/90 mm Hg; 6% AA and 10% C with initial V and 9.6% AA and 10% C with initial V/HCTZ did not receive optional HCTZ, despite uncontrolled BP.

006

INHIBITION OF HIV1 REPLICATION AND RESTORATION OF GLUCOSE, LIPIDS, HEMOGLOBIN LEVELS AND NITRIC OXIDE (NO) IMBALANCE IN HIV1 PATIENTS FROM GABON

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Background. Deregulations of blood levels in glucose, lipids, hemoglobin and nitric oxide (NO) are driven by HIV and HAART treatments. Dehydroepiandrosterone (DHEA), which has less effects on HIV1, prevent insulin resistance by down regulating adipocytes peroxisome proliferators activator gamma (PPARγ) receptors, inhibits also the interleukins 1,6,10 TNFα; thereby stimulating nitric oxide (NO).

Herein, we test whether IM28, the potent analog of DHEA, can restore glucose and lipids induced by HIV and HAART in addition to its potency to inhibit HIV1. The study was undertaken on a cohort of 201 volunteer Gabonese HIV1 patients among which 90 carried opportunistic pathologies such as diabetes, hypertension, tuberculosis, malaria, skin rash, digestive rash and urinal rash, facial paralysis, language troubles, memory deficit, anorexia and anxiety.

Methods. Patients received 50 mg/day/70 kg of IM28 or DHEA and were monitored weekly by our physicians; their blood samples were analyzed accordingly. All protocols used were in compliance with the research and ethic guidelines of our institution and approved by the republic of Gabon.

Results. No side effects attributable to IM28 were noticed regarding hepatic, cardiac and renal functions. No significant difference was seen with baseline of urea, creatinine, GOT and TGP. By contrast to patients treated with DHEA, normalization of glycemia, increased body weight, CD4 ($P<0.01$), lymphocytes and hemoglobin levels ($P<0.001$) paralleled by significant reduction of platelets, antigenemia p24 ($P<0.001$) and viral load ($P<0.01$) were observed in patients under IM28 treatment.

In addition, IM28 normalized body weight, lipids, glucose levels and blood pressure in obese, hypertensive diabetes and HIV patients. More IM28 reduced significantly the percentage of opportunistic affections such as tuberculosis, malaria, skin rash, digestive rash, urinal rash, stroke, facial paralysis, language and memory troubles, dementia and anxiety. Moreover, the body temperature, which is always higher in HIV1 patients and persisting under HAART treatment, was reduced and normalized in patients under IM28, in agreement of the presence of an antipyretic molecule in its composition.

Conclusion. Data suggest that, the use or the substitution of DHEA, which is already used as supplement of HIV-1 treatment by IM28, should represent a better therapeutic avenue for HIV-1 and opportunistic related diseases as well as for cardiovascular diseases inducing those induced by HIV and HAART. Therapeutic effects of IM28 may be partly due to nitric oxide (NO) through the normalization of reservoir hemoglobin levels. However, additional investigations are required to show whether IM28 directly regulates PPARγ receptors as is the case for DHEA and other molecules including related drugs.

007

CHANGES IN GLUTATHIONE METABOLISM IN HYPERTENSIVE AFRICAN AMERICAN WOMEN

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African Americans experience higher prevalence of cardiovascular diseases when compared to other populations. Reduction or elevation in glutathione has been shown to contribute to cardiovascular diseases. The objective of this study is to determine the levels of glutathione and proteins related to glutathione metabolism in African Americans. Blood samples ($n=329$) obtained from hypertensive and normotensive African Americans were assigned to eight groups: young (23–49 year-old) and old (51–71 year-old) men and women with or without hypertension. The level of plasma glutathione was measured using a spectrophotometric assay, and the activity and protein level of enzymes related to glutathione metabolism in the plasma and red blood cells were measured using spectrophotometric assays and Western blot analysis. Our data demonstrated that the plasma levels of total, oxidized and reduced glutathione in old hypertensive women increased by 50%, 40% and 70% when compared with the age-matched normotensive women. In addition, the protein levels of γ-glutamylcysteine synthetase (γ-GCS) and glucose-6-phosphate dehydrogenase (G6PD) in the red blood cells obtained from old hypertensive women were approximately 100-fold higher than in those from old normotensive controls, while the activity and protein level of glutathione peroxidase and glutathione reductase in these two groups of subjects were comparable. No significant difference was observed in the levels of glutathione and enzymes studied among young women, young and old men and women with or without hypertension. These data suggest that elevation in γ-GCS and G6PD could be responsible for the increased plasma glutathione level in the aged hypertensive women.

008

HEALTH LITERACY AND LANGUAGE PREFERENCE IN HISPANICS WITH CHRONIC KIDNEY DISEASE

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The role of health literacy (HL) and language preference in Hispanics with chronic kidney disease (CKD) is not known. In a cross-sectional analysis, we assessed HL (using the Short Test of Functional Health Literacy) and language preference in 327 Hispanic participants with mild to moderate CKD enrolled in the Hispanic Chronic Renal Insufficiency Cohort Study and studied the relationship between these variables and estimated glomerular filtration rate (eGFR) and control of hypertension, diabetes and dyslipidemia.

Spanish language preference (SPL) was reported by 82% of participants. Almost 40% could not read in either language and among those that could read, 43% had inadequate or marginal HL. SPL was associated with older age, lower income, lower educational level, higher blood pressure (BP) and decreased use of renin angiotensin system inhibitors compared to English language preference. Lower HL and inability to read were associated with increased prevalence of diabetes, higher BP, and depression, as well as poorer self-reported health. By multivariable analysis, inability to read was independently associated with poor BP control (BP>130/80). HL or language preferences were not associated with eGFR and control of diabetes and dyslipidemia in adjusted analyses.

Lower levels of HL and SPL were significantly associated with lower socioeconomic status and poorer BP control in Hispanics with CKD. In addition, lower HL was associated with increased depression and poorer self-reported health. The importance of HL and SPL as potential risk factors for adverse renal and cardiovascular outcomes in Hispanics with CKD is being examined prospectively.

009

BUILDING PARTNERSHIPS IN URBAN COMMUNITIES THROUGH FOCUS GROUPS

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The purpose of this focus group meeting was to seek input from urban hypertensive/diabetic patients on the development of a behavior change counseling tool.

Objectives. To establish content validity for the Counseling for Behavior Change-36 (CBC-36), a tool purposed to facilitate teaching and activate conversation between the provider and patient. To relate the input received from the focus group meeting for refinement of items on the CBC-36.

Methods. Patients from the Baltimore Cardiovascular Partnership received an invitation, by mail, to participate in this focus group meeting. Prior to the session the major objective of the meeting was established, and questions for the session were developed. Activities included self administration of the preliminary tool. Assessment of wording, applicability, and appropriateness of the preliminary tool was priority. Participants were asked to comment on each item, in addition to rating the items on a 4-point Likert scale as, ''very important,'' ''important,'' ''of little importance,'' ''unimportant.''

Results. Participants, $N=14$, were all African American. Self administration of the tool took approximately 12–15 minutes. Revising the wording of items for clarity, eliminating suggested items, and expressed satisfaction by participants resulted. Saturation seemed apparent by the end of the session.

Conclusions. When asked, ''What do you like about the tool?'' participants stated, ''It was quick and easy,'' ''helps you dialogue with your doctor about questions or concerns you may have about your particular situation,'' and ''it has a common cause or purpose.'' As a result of this partnership, culturally sensitive adjustments were made to the CBC-36.

010

DELAYED DIAGNOSIS/MANAGEMENT OF PRIMARY ALDOSTERONISM — HELP FROM THE WEB: A SUPPORT GROUP FOR PATIENTS STRUGGLING WITH THIS COMMON CAUSE OF DIFFICULT-TO-CONTROL HIGH BLOOD PRESSURE.

CE Grim; S Hall S; V Murphy; HM PEARSON and the 500+ members of hyperaldosteronism at Yahoogroups.com

Primary aldosteronism (PA) is characterized by drug-resistant HTN (ACEs, ARBs and BB don't work) and, in advanced cases, disabling hypokalemia (LoK). An online group organized in 2002 by a single patient has grown into a world-wide support group. Many have made the diagnosis(Dx) themselves by searching the web after frustration with their health care team's failure to recognize the association of LoK and drug resistant HTN. The average patient had seen 5 different Drs before Dx and average duration of poorly Rxed HTN was 10 (range 1–40) years. Average BP decreased from 212±28/124±23 mm Hg before DX to 131±15/83±12 after Rx. (spironolactone 60 mg/day or eplerenone 120/d).

Based on an analysis of 28 with confirmed PA, Dx should be suspected by the complex of drug resistant HTN (93%), nocturia (75%), muscle cramps/fatigue (60%), and ER visits for a syndrome headaches, chest pains, muscle cramps, and anxiety with severe HTN and LoK (90%)

Despite the fact that the DASH diet should be a powerful treatment for this human model of aldo/salt HTN, only 14% had this recommended.

We invite all caring for difficult HTN to visit hyperaldosteronism at Yahoo Groups to read the 15,000+ e-mails and the ''Conn's Stories'' as we are certain they will recognize this syndrome in some of their own patients and be spurred to test for PA in their own practices.

011

PREVALENCE OF HTN IN AN HIV CLINIC IN NIGERIA: AN EPIDEMIC WITHIN AN EPIDEMIC?

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Early in the HIV-AIDS epidemic it was rare to encounter a patient with high blood pressure (HBP). With the advent of successful pharmaceutical control of viremia in AIDs, cardiovascular disease (CVD) has emerged as a common cause of disability and death. The role of the rise in BP with HIV Rx in the genesis of CVD is not well understood nor has the effect of HIV meds on BP itself been well studied. The key role of HTN in disability and death in those of African descent makes it likely that HTN will play a deadly role in those under long term treatment for HIV.

We estimated the frequency of HTN (≥140/and or ≥90) in 405 patients being treated for HIV in the Federal University Hospital in Owerri, Imo State, Nigeria. Overall 23% of the patients had high blood pressure. Average age was 38 yrs. In the general medicine clinic we found only 9% of those without HIV had HTN. Their average age was 34 years.

HTN has emerged as a major component of the chronic disease complex that must be managed in the long term care of those with HIV in Africa.

Training of HIV staff to mastery in the measurement and management of blood pressure and the provision of antihypterensive medications as part of the armamentarium should be undertaken to quickly intervene in this epidemic within an epidemic.

012

QUALITY IMPROVEMENT FOR BLOOD PRESSURE (BP) MEASUREMENT: EFFECT OF TRAINING ON TERMINAL DIGIT PREFERENCE IN AN URBAN INTERNAL MEDICINE CLINIC

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Background. Accurate BP measurement is the key to accurate BP diagnosis and treatment. A simple way to monitor the quality of BP in a clinic is to monitor terminal digit (TD) distribution (0,2,4,6,8) of recorded BPs. The most common TD is zero which leads to underestimation or overestimation of BP reading. The purpose of this study is to assess the accuracy of BP measurement using TD as an indicator in an urban clinic serving 4,000 patients a year (70% African American).

Methods. We tested the effect of a standardized 6-hour training of clinic personnel using the Shared Care Method to validate mastery of knowledge for an accurate BP measurement. We assessed the effect of this training on TD bias by tabulating TD distribution the 3 months before and 3 months after the training.

Results. There was a striking improvement in TD bias. The result also showed a higher mean SBP after training, but the percentage of persons with high blood pressure were higher in the before group; that means there could be an overestimation of high blood pressure rate in this group.

Conclusions. Inaccuracies in BP measurement in primary care clinic can be seen by terminal digit Bias analysis. TD biases analysis can be used as a quality indicator. Measurement can be improved through training.

013

EFFICACY OF AN AMLODIPINE/OLMESARTAN MEDOXOMIL (AML/OM)-BASED TITRATION REGIMEN IN OBESE OR NON-OBESE PATIENTS WITH HYPERTENSION

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A *post hoc* analysis of a 12-week, titrate-to-goal study in obese/non-obese patients (BMI≥30 or <30) with hypertension is presented. Following placebo run-in, patients were treated with AML 5 mg and uptitrated at 3-week intervals if mean seated cuff (Se)BP ≥120/80 mm Hg, to AML/OM 5/20 mg, AML/OM 5/40 mg and AML/OM 10/40 mg. Primary endpoint was change from baseline in mean 24 hr SBP measured by ambulatory blood pressure monitoring (ABPM) at Week 12.

Baseline/Week 12 ABPM results were available for 172 patients. Baseline mean age (±SD) was 56.8±9.3 years with 105/185 (56.8%) males and 103/185 (55.7%) with Stage 2 hypertension. AML/OM was well-tolerated and produced significant BP reductions from baseline in obese patients and enabled these patients to achieve a range of ambulatory BP targets and SeBP goals.

Mean 24-hour ABPM

	Baseline BP	BP Reduction	BP<140/90 mm Hg,%	BP<135/85 mm Hg,%	BP<130/80 mm Hg,%	BP<125/75 mm Hg,%	BP<120/80 mm Hg,%
Obese, *n*=89	143.7±1.0/84.9±0.9	21.6±1.1/13.4±0.8	94.4	89.9	75.3	58.4	43.8
Non-Obese, *n*=83	146.1±1.4 86.6±0.8	21.1±1.2 12.0±0.7	89.2	80.7	66.3	37.3	37.3

Mean SeBP

	AML 5 mg	AML/OM 5/20 mg	AML/OM 5/40 mg	AML/OM 10/40 mg
Obese, *n*	96	93	83	69
Baseline BP	158.0±1.3/94.1±0.9	158.3±1.3/94.1±0.9	159.1±1.4/93.9±1.0	161.0±1.4/94.3±1.0
BP Reduction	11.4±1.2/5.0±0.7	20.1±1.2/9.7±0.8	21.8±1.3/10.2±0.8	26.1±1.6/12.5±1.0
BP<140/90 mm Hg, cumulative%	21.9	51.0	69.8	78.1
Non-Obese, *n*	89	86	77	64
Baseline BP	158.0±1.4/91.4±0.9	158.1±1.4/91.2±0.9	158.6±1.4/91.5±1.0	160.3±1.5/91.3±1.2
BP Reduction	8.8±1.5/4.4±0.9	15.8±1.4/8.2±0.9	19.0±1.6/9.0±0.9	22.9±1.7/12.1±1.1
BP<140/90 mm Hg, cumulative %	25.8	43.8	64.0	75.3

BP values mm Hg (±SEM). All reductions $P<0.0001$ vs baseline.

014

EFFICACY OF OLMESARTAN MEDOXOMIL (OM) AND HYDROCHLOROTHIAZIDE (HCTZ) IN ELDERLY (65 YEARS) PATIENTS WITH HYPERTENSION: A POST HOC ANALYSIS OF PATIENTS WITH ISOLATED SYSTOLIC HYPERTENSION

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The effect of OM±HCTZ on BP in 178 elderly patients with hypertension was evaluated by 24-hour ambulatory BP monitoring (ABPM) and seated cuff BP (SeBP) in an open-label, dose titration study. Following placebo run-in (2–3 weeks), patients started OM 20 mg, uptitrated at 3-week intervals to OM 40 mg, OM/HCTZ 40/12.5 mg then OM/HCTZ 40/25 mg. Patients were uptitrated if SeBP ≥120/70 mm Hg. If SeBP <120/70 mm Hg, patients remained on maintenance dose and only up-titrated if uncontrolled (SeSBP≥140 and/or SeDBP≥90 mm Hg). The primary endpoint was change from baseline in mean 24-hour ABPM SBP after 12 weeks. A post hoc analysis of patients with isolated systolic hypertension (ISH: SeSBP ≥140 mm Hg and SeDBP <90 mm Hg) is presented. The ISH cohort comprised 98 patients (Baseline/Week 12 ABPM available for 84 patients) with mean age (±SD) 72.5±5.4 years. Baseline (±SD) mean 24-hour ambulatory BP was 146.6±9.0/77.5±6.8 mm Hg and mean SeBP was 161.4±9.2/81.1±6.3 mm Hg. Drug-related incidences of dizziness (4.1%), hypotension (3.1%), headache (2.0%) and nausea (2.0%) were reported. Treatment was well-tolerated and significantly reduced SBP in patients with ISH.

Table. Efficacy at 12 Weeks

	ABPM	SeBP			
	End of Study (*n*=84)	OM 20 mg (*n*=98)	OM 40 mg (*n*=93)	OM/HCTZ 40/12.5 mg (*n*=87)	OM/HCTZ 40/25 mg (*n*=64)
BP change from baseline (mm Hg; mean±SEM)*	−24.7±1.3/ −11.2±0.7	−9.0±1.3/ −2.0±0.7**	−12.0±1.4/ −4.7±0.8	−21.2±1.7/ −7.0±0.8	−21.5±2.0/ −6.8±1.0
% patients achieving ambulatory BP targets and cumulative SeBP goals (mm Hg)	<140/90	<135/85	<130/80	<125/75	<120/80
Mean 24-hour ambulatory BP (%)	91.7	85.7	76.2	61.9	47.6
SeBP (%)	72.4	ND	50.0	ND	26.5

*All reductions $P<.0001$, except **$P<.01$. ND=not determined.

015

IMPACT OF RACE ON BP REDUCTION AND GOAL ACHIEVEMENT OF OLMESARTAN MEDOXOMIL-BASED TREATMENT IN PATIENTS WITH TYPE 2 DIABETES

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A prespecified race, ie, Black and non-Black, subgroup analysis of a 12-week, open-label, single-arm, dose-titration study assessing efficacy and safety of olmesartan medoxomil (OM)±hydrochlorothiazide (HCTZ) was performed in patients with type 2 diabetes and hypertension. Primary endpoint was the change from baseline (Δbaseline) in mean 24-hr SBP as assessed by ambulatory BP monitoring (ABPM). Secondary endpoints included Δbaseline in mean 24-hr ambulatory DBP and in mean seated (Se) cuff BP; and proportion of patients achieving BP <130/80, <125/75 or <120/80 mm Hg. Patients (*N*=192) began OM 20 mg, uptitrated at 3 week intervals if BP ≥120/70 mm Hg to OM 40 mg, OM/HCTZ 40/12.5 mg and OM/HCTZ 40/25 mg. Baseline BP was similar across subgroups. Most patients were titrated to OM/HCTZ 40/25 mg (Black, 83.7%; non-Black, 72.5%). Efficacy results are in Table. There were few drug-related adverse events during the study (Black, 2/43; non-Black, 13/149). No more than one patient experienced edema, headache, fatigue or dizziness in each subgroup.

OM/HCTZ combination therapy was well-tolerated and resulted in significant decreases in BP in Black patients with type 2 diabetes and hypertension.

	24-hr Ambulatory BP		SeBP	
	Black, *n*=39	non-Black, *n*=133	Black, *n*=43	non-Black, *n*=149
BP values, mm Hg				
Mean Baseline BP (±SD)	146.6±11.4/86.0±8.7	146.3±12.1/82.5±7.8	157.7±12.5/93.9±9.0	158.2±12.6/88.9±10.0
ΔBaseline in mean BP (±SEM)	−23.0±1.7/−13.0±1.2	−19.6±1.0/−10.5±0.6	−19.7±2.2/−10.5±1.2	−21.8±1.2/−9.6±0.7
BP target achievement, %				
<130/80 mm Hg	64.1	60.9	39.5*	41.6*
<125/75 mm Hg	48.7	46.6	ND	ND
<120/80 mm Hg	41.0	38.3	23.3*	24.2*

P<0.0001 vs baseline for all reductions.
* Cumulative rates.
ND: not determined

016

THE COMBINATION OF AMLODIPINE + OLMESARTAN MEDOXOMIL PROVIDES NUMERICALLY GREATER REDUCTIONS IN BLOOD PRESSURE COMPARED WITH COMPONENT MONOTHERAPIES IN RACE AND ETHNIC SUBGROUPS

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Racial/ethnic differences in the blood pressure (BP) lowering efficacy of amlodipine (AML) + olmesartan medoxomil (OM) combination therapy vs respective monotherapy components were investigated. A randomized, double-blind, placebo-controlled, 8-week factorial-design study was conducted in patients with hypertension (SeDBP 95–120 mm Hg) to determine if AML 5–10 mg/day + OM 10–40 mg/day had significant efficacy benefits vs monotherapy. The primary endpoint was change from baseline in mean SeDBP at end of study (LOCF). Secondary endpoints included change from baseline in mean SeSBP and proportions of patients reaching BP goal (<140/90 or <130/80 mm Hg for patients with diabetes).

Of 1940 patients, 71.4% were Caucasian and 24.8% were Black. Ethnicity was determined separately from race: 12.6% were Hispanic/Latino. In Blacks, mean reductions in SeDBP were greater with AML+OM vs OM monotherapy ($P<.05$) and in non-Blacks vs both OM and AML monotherapy ($P\leq.0004$). Non-Blacks had numerically greater mean BP reductions than Blacks for the combination treatment. For the ethnic subgroups both had numerically greater BP reductions for combination therapy vs monotherapy. Mean BP reductions with AML+OM 10+20 mg and 10+40 mg respectively, were 25.3/15.2 and 28.7/15.7 mm Hg (Blacks), 30.9/17.8 and 30.5/19.9 mm Hg (non-Blacks), 29.3/17.9 and 28.8/20.9 mm Hg (Hispanic/Latino), and 29.1/16.9 and 30.3/18.7 mm Hg (non-Hispanic/non-Latino). All subgroups showed similar trends in BP goal achievement.

Combination therapy resulted in numerically greater mean reductions in BP vs monotherapy, with greatest reductions occurring with AML+OM 10+20 or 40 mg. BP lowering response was less in Blacks vs non-Blacks and similar in magnitude among ethnic subgroups.

017

EFFICACY OF AN AMLODIPINE/OLMESARTAN MEDOXOMIL (AML/OM)-BASED TITRATION REGIMEN IN BLACK OR NON-BLACK PATIENTS WITH HYPERTENSION

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A prespecified analysis of a 12-week, titrate-to-goal study in Black/non-Black patients with hypertension is presented. Following placebo run-in, patients were treated with AML 5 mg. If mean seated cuff (Se) BP was ≥120/80 mm Hg, patients were uptitrated at 3-week intervals to AML/OM 5/20 mg, AML/OM 5/40 mg and AML/OM 10/40 mg. The primary endpoint was change from baseline in mean 24 hr SBP measured by ambulatory blood pressure monitoring (ABPM) at Week 12. Baseline/Week 12 ABPM results were available for 172 patients. Baseline mean age (±SD) was 56.8±9.3 years with 105/185 (56.8%) male patients and 103/185 (55.7%) with Stage 2 hypertension. BP reductions from baseline in Black and non-Black subgroups were similar. AML/OM treatment was well-tolerated.

Mean 24-Hour ABPM

	Baseline BP	BP Reduction	BP<140/ 90 mm Hg,%	BP<135/ 85 mm Hg,%	BP<130/ 80 mm Hg,%	BP<125/ 75 mm Hg,%	BP<120/ 80 mm Hg,%
Black, *n*=24	148.6±3.0/85.7±1.7	20.7±2.2/11.0±1.1	87.5	70.8	58.3	41.7	20.8
Non-Black, *n*=148	144.2±0.9/85.7±0.7	21.5±0.9/13.0±0.6	92.6	87.8	73.0	49.3	43.9

017, continued

Mean Seated Cuff BP

	AML 5 mg	AML/OM 5/20 mg	AML/OM 5/40 mg	AML/OM 10/40 mg
Black, *n*	26	26	24	19
Baseline BP	163.6±2.4/94.9±1.7	163.6±2.4/94.9±1.7	164.7±2.5/95.5±1.8	167.5±2.5/94.9±1.9
BP Reduction	14.1±1.7/5.2±1.2*	18.9±2.5/8.7±1.5	20.2±3.0/9.1±1.8	24.9±4.2/10.2±2.3*
BP<140/90 mm Hg, cumulative%	23.1	38.5	53.8	69.2
Non-Black, *n*	159	153	136	114
Baseline BP	157.1±1.0/92.4±0.7	157.3±1.0/92.4±0.7	157.8±1.1/92.3±0.8	159.5±1.1/92.5±0.9
BP Reduction	9.5±1.1/4.7±0.6	17.9±1.0/9.0±0.6	20.5±1.1/9.7±0.7	24.5±1.2/12.6±0.7
BP<140/90 mm Hg, cumulative %	23.9	49.1	69.2	78.0

All BP values mm Hg (±SEM). All reductions $P<0.0001$, except, $^*P<0.001$ vs baseline.

018

EFFICACY OF AN AMLODIPINE/OLMESARTAN MEDOXOMIL (AML/OM)-BASED TITRATION REGIMEN IN PATIENTS WITH OR WITHOUT DIABETES AND HYPERTENSION

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A prespecified analysis of a 12-week, titrate-to-goal study based on type 2 diabetes status in patients with hypertension is presented. Following placebo run-in, patients received AML 5 mg. If cuff BP ≥120/80 mm Hg, patients were uptitrated at 3-week intervals to AML/OM 5/20 mg, AML/OM 5/40 mg and AML/OM 10/40 mg. The primary endpoint was change from baseline in mean 24 hr SBP measured by ambulatory blood pressure monitoring (ABPM) at Week 12.

Baseline mean age (±SD) was 56.8±9.3 years. There were 105/185 (56.8%) male patients and 103/185 (55.7%) had Stage 2 hypertension. Baseline/Week 12 ABPM results were available for 172 patients. Mean 24-hr ABPM targets of <130/80, <125/75 and <120/80 mm Hg were achieved by 79.1%, 53.5% and 39.5% of patients with diabetes, respectively. Treatment was welltolerated producing similar BP reductions in patients with or without diabetes.

Mean 24-hour ABPM

	Baseline BP	BP Reduction	BP<130/ 80 mm Hg,%	BP<125/ 75 mm Hg,%	BP<120/ 80 mm Hg,%
With diabetes, *n*=43	145.6±1.7/83.1±1.4	21.5±1.8/12.6±1.1	79.1	53.5	39.5
Without Diabetes, *n*=129	144.6±1.0/86.6±0.7	21.3±0.9/12.8±0.6	68.2	46.5	41.1

Mean SeBP

	AML 5 mg	AML/OM 5/20 mg	AML/OM 5/40 mg	AML/OM 10/40 mg
With Diabetes, *n*	46	44	38	33
Baseline BP	159.3±1.7/90.3±1.4	159.5±1.8/90.1±1.4	160.7±1.8/89.7±1.6	163.4±1.6/90.2±1.7
BP Reduction	12.1±2.0/6.7±1.1	17.8±1.9/8.6±1.2	19.9±1.7/9.7±1.2	24.8±2.2/12.0±1.0
Without Diabetes, *n*	139	135	122	100
Baseline BP	157.6±1.1/93.6±0.7	157.8±1.1/93.6±0.7	158.2±1.2/93.7±0.8	159.7±1.3/93.8±0.9
BP Reduction	9.5±1.1/4.1±0.6	18.1±1.1/9.1±0.7	20.6±1.2/9.6±0.7	24.5±1.4/12.4±0.9

All BP values mm Hg (±SEM). All reductions $P<0.0001$ vs baseline.

019

THE ASSOCIATION BETWEEN HEALTH LITERACY AND GLYCEMIC CONTROL AMONG MEXICAN AMERICAN DIABETICS WITH CHRONIC KIDNEY DISEASE: A PRELIMINARY REPORT FROM THE PASO DEL NORTE KIDNEY DISEASE STUDY (PNKDS)

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Objective. To evaluate the relationship between health literacy (HL) and glycemic control in Mexican American diabetics with chronic kidney disease (CKD).

Methodology. Beginning in 6/2008, we have been recruiting patients with CKD stages 2–4 attending our renal clinic. Subjects had their HL measured with the short-form Test of Functional Health Literacy in Adults (s-TOFHLA). The s-TOFHLA scores are categorized as ''inadequate HL'' (0–16); ''marginal HL'' (17–22); and ''adequate HL'' (23–36). The outcome was poor glycemic control–a hemoglobin A1c (HbA1c) ≥7%. We used logistic regression to obtain the odds ratio (OR) of poor glycemic control comparing subjects with inadequate vs marginal/adequate HL and adjusted for gender, age, insurance, education, income, birthplace, language preference, hypertension and smoking.

Results. 64 diabetic patients have enrolled. The mean age is 61.5 years; 47% are female; and 92% are Mexican American. 34% of subjects had inadequate HL, 7% had marginal HL, and 59% had adequate HL. 59% of subjects had a HbA1c ≥7%. Subjects with inadequate HL were more likely to have poor glycemic control compared to those with marginal/adequate HL (OR, 6.34; 95% confidence interval 0.78–51.3, $P=.083$).

Conclusions. Among Mexican American diabetics with CKD, there is a strong association between inadequate HL and poor glycemic control. Our study is limited by the small number of patients recruited thus far, which may explain why statistical significance was not strictly met. Physicians should be aware of patients with inadequate HL, as they may be at risk for poor glycemic control and subsequent diabetic complications.

020

NEBIVOLOL IN HIGH-RISK, OBESE AFRICAN AMERICANS WITH STAGE 1 HYPERTENSION: EFFECTS ON BLOOD PRESSURE, NITRIC OXIDE BIOAVAILABILITY, AND VASCULAR FUNCTION

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Despite available medical treatment, the incidence and complications of hypertension continue to be high, especially among African Americans. Nebivolol is a highly cardioselective beta 1 receptor blocker agent with vasodilatory effects mediated by nitric oxide. This study evaluated the effects of 8-week nebivolol treatment (5–10 mg/day) on blood pressure, nitric oxide bioavailability, and vascular function changes in obese African Americans with recently diagnosed Stage 1 hypertension ($n=43$). The primary study outcomes were changes in systolic and diastolic blood pressure and efficacy in reaching normotensive blood pressure (systolic <140 mm Hg; diastolic <90 mm Hg). Secondary outcomes included measurement of arterial compliance, endothelial function and levels of erythrocyte extracellular superoxide dismutase (EC SOD). Mean systolic blood pressure was 143.8 ± 14.3 mm Hg before initiation of nebivolol treatment and decreased to 133.0 ± 14.0 mm Hg after 8 weeks of treatment ($P<.005$). Diastolic blood pressure decreased from 90.4 ± 8.2 mm Hg before treatment to 83.6 ± 9.5 mm Hg at the end of the treatment period ($P<.005$). Significant improvements were seen in arterial compliance with nebivolol treatment as measured by aortic augmentation index (pre-treatment: $16.6\pm2.2\%$, post-treatment: $11.1\pm1.7\%$; $P<.005$) and time to wave reflection (pre-treatment: 164 ± 22 msec, posttreatment: 137 ± 16 msec; $P=.013$). Additionally, nebivolol treatment improved endothelial function as measured by flow mediated dilation (pre-treatment: $3.4\pm0.4\%$, post-treatment: $11.0\pm1.3\%$; $P<.005$). Levels of EC SOD increased with nebivolol treatment, thereby suggesting increased bioavailability of nitric oxide and defense against oxidation (pre-treatment: 465.2 ± 50.6 U/ml, posttreatment: 537.4 ± 54.4 U/ml; $P<.005$). In conclusion, monotherapy with nebivolol in obese, hypertensive African Americans results in significant systolic and diastolic blood pressure reduction as well as the ability to reach normotensive blood pressure levels. Furthermore, additional effects observed with nebivolol treatment may protect against the development of cardiovascular and renal disease.

021

THE METABOLIC SYNDROME DOES NOT EFFECTIVELY IDENTIFY DIABETES RISK IN BLACK AFRICANS: RESULTS OF A PILOT COMPARISON OF BLACK AFRICANS AND AFRICAN AMERICANS

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Metabolic syndrome (MetSyn) should carry a 5-fold risk of diabetes. However, the ability of MetSyn to predict diabetes risk in Black Africans (BA) is unknown. We compared diabetes risk factors and MetSyn prevalence in Blacks born in Africa but living in the USA to Blacks born in the USA (ie African Americans [AA]). Twenty-four BA (67% male, age 36±7 y (mean±SD), BMI 27.2±3.7) were matched by sex, age and BMI to 24 AA. Participants had oral glucose tolerance tests (OGTT), abdominal CT scans, minimal model determination of insulin resistance (SI) and β-cell function measured by acute insulin response to glucose (AIRg). MetSyn prevalence was 8% in both BA and AA. However, the combined prevalence of pre-diabetes and diabetes was higher in BA than AA (50% vs 8%) with an odds ratio of 11 (95%CI: 2.1–57.5). Insulin resistance (SI) and waist circumference did not differ by ethnicity, but BA had higher 2 h glucose, more VAT and lower AIRg (Table). We conclude that as the prevalence of MetSyn was similar in BA and AA, but BA had a higher risk of diabetes, the MetSyn does not identify diabetes risk in BA. The higher 2 h glucose, greater VAT and lower β-cell function in BA suggest the increased diabetes risk in BA is not a Type 1 error. A reformulation of MetSyn risk factors or thresholds could lead to a greater ability of the MetSyn to identify BA at risk for diabetes.

Table. Metabolic Characteristics

	Black Africans	African Americans	*P*-value*
2 h glucose (mg/dL) during OGTT	144±35	116±19	<.001
Visceral Adipose Tissue	91.8±52.3	68.6±52.8	<.05
Acute Insulin Response to Glucose	587±59	1087±217	<.05

* Paired t-test.

022

PREVALENCE AND PATTERN OF METABOLIC SYNDROME IS SIMILAR IN WEST AFRICANS AND AFRICAN AMERICANS

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As cardiovascular disease (CVD) and diabetes mellitus (DM) reach epidemic proportions in Africa, there is a movement to use the Metabolic Syndrome (MetSyn) as an early warning system. However, MetSyn does not optimally predict CVD and DM for African Americans (AA). For AA, this lack of effectiveness is attributed to the relative absence of hypertriglyceridemia. Whether this also occurs in West Africans, the ancestral population of AA, is unknown. Our goal was to determine the prevalence and characteristics of MetSyn in AA from metropolitan Washington, DC and West Africans (WA) from urban centers in Nigeria and Ghana. Cross-sectional analyses of 364 WA from the Africa America Diabetes Study (44% male, age 45.7±14.4 [mean±SD] range 19–86 y, BMI 27.3±6.4 range 18.5–54.2) and 932 AA from the Howard University Family Study (46% male, age 45±13, range 18–87 y, BMI 29.9±7.3, range 18.5–54.2). MetSyn was defined according to NCEP-ATPIII. MetSyn prevalence was higher in WA women than men (46% vs18%, P<.001) and AA women than men (42% vs 17%, *P*<.001). MetSyn parameter frequency provided in Table. We conclude that the prevalence and pattern of MetSyn are remarkably similar in WA and AA. Hypertriglyceridemia was one of the least common MetSyn variables in both groups. Due to these similarities we speculate that the experience of MetSyn in AA will predict the WA experience.

Table. Percent Parameter Frequency in West Africans and African Americans with Metabolic Syndrome

		↑ Blood Pressure %	↓ High Density Lipoprotein %	↑ Waist Circumference %	↑ Triglyceride %	↑ Fasting Glucose %
West	Men	99.9	90.0	66.7	43.3	40.0
Africans	Women	98.8	98.8	97.7	16.5	16.5
African	Men	90.3	63.9	72.2	55.6	44.4
Americans	Women	87.3	88.1	96.8	40.8	22.4

023

RELATIONSHIP BETWEEN INFLAMMATION AND HYPERTENSION IN BLACKS

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The relationship between inflammation and hypertension (HTN) is still unclear. Increased plasma levels of inflammatory cytokines, including interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF-α) are seen in persons with preHTN and HTN. HTN and related target organ damage is more severe in Blacks than Whites, but few studies have compared inflammation in Black and White hypertensives.

Objectives. Compare serum IL-6 and TNF-α in hypertensive and normotensive whites and blacks.

Methods. Blood from 46 subjects was used to determine serum IL-6 and TNF-α levels. 26 HTN (White $n=14$, Black $n=12$), 20 normotensives (White $n=12$, Black $n=8$). Serum IL-6 and TNF-α levels were measured by chemiluminescent ELISA kits. No subjects had frank inflammatory disease.

Results. IL-6 and TNF-α levels were higher in HTN than normotensives ($P=0.018$ and $P=.013$). There was a trend toward TNF-α levels being higher in White than Black HTN ($P=.08$). IL-6 levels were also higher in White than Black HTN, but the difference was not significant ($P=.18$). Blacks and Whites had same blood pressures, ages, and weights.

Conclusions. There were trends toward higher serum IL-6 and TNF-α levels in White vs Black HTN. Is inflammation the process of repair of vascular damage in HTN rather than a cause of it? Is decreased inflammation a cause of the increased severity of HTN and increased end-organ damage in HTN in Blacks?

024

A COMPARATIVE STUDY OF PREVALENCE AND MANAGEMENT OF ARTERIAL HYPERTENSION IN THE FRENCH CARIBBEAN REGION AND MAINLAND FRANCE

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Background. Recent reports suggested an increased severity of hypertension in the Caribbean with a higher incidence of stroke and end-stage renal disease, compared to mainland France or to other European countries. No direct comparative study of the epidemiological aspects of hypertension between the Caribbean region and any European country has been performed yet.

Aims. To measure the difference between the French Caribbean area population and mainland France in the prevalence, awareness, treatment and control of hypertension

Methods. Cross-sectional analysis of two cohorts of workers surveyed in the Caribbean (6113 subjects) and in mainland France (29487 subjects). Hypertension was defined either as the use of anti-hypertensive medications, or as blood pressure $>140/90$ mm Hg at two separate visits.

Results. Mean age was 39.4 ± 8.9 years in the Caribbean cohort and 38.8 ± 9.6 years in the Metropolitan one. Caribbean women have a higher prevalence of hypertension than French women (18.4 vs 9.6%, $P<.001$), a difference partially linked to their twice higher prevalence of obesity (16.9 vs 8.9%, $P<.001$). They also have a better awareness (82.1 vs 67.6%, $P<.001$) and a better control of hypertension (44.9 vs 33.1%, $P<.01$). A much lower difference in the prevalence of hypertension was found between the Caribbean and French metropolitan men (19.5 vs 16.2%, $P<.001$, respectively). No further difference was found in the treatment (72.2 vs 76.3%) and control of hypertension (13.3 vs 12.3%).

Conclusion. Prevalence of hypertension is higher among Caribbean women compared to women from mainland France. However, Caribbean men and women display a similar or even better control of blood pressure when compared to their counterparts in mainland France.

025

FAITH-BASED DASH LIFESTYLE PROGRAM FOR HYPERTENSION CONTROL IN AFRICAN AMERICANS CHURCH COMMUNITIES- PROGRAM OVERVIEW

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Hypertension (HTN) is a highly prevalent risk factor for cardiovascular diseases (CVDs), and disproportionately affects African Americans (AAs). Besides medications, lifestyle interventions are also effective in lowering blood pressure (BP), and the ''Dietary Approach to Stop Hypertension'' (DASH) diet has been shown to significantly reduce BP in AAs. The PREMIER study (DASH diet and recommended lifestyle intervention), showed lower BP response in AAs as compared to other groups. Despite extensive publicity, DASH has not been widely adopted by the public. Barriers to healthy eating in general, and DASH foods specifically, have been described and include income, education, attitudes about foods, health beliefs, and availability issues. This study builds on our previous research in the AA community and church partnership. Using community-based participatory research (CBPR) approaches, the objective of this project is to modify, test and deliver ''PREMIER lifestyle intervention into a faith-based (FB), culturally appropriate DASH (FB-DASH). FB-DASH is developed in partnership with AA church pastors and church officials along with guidance from experts from both PREMIER and DASH programs. This intervention is delivered to the community by church-health ministers under the supervision of a research team trained and supported by experts with overarching guidance from church pastors. In this cluster randomized community trial of AA high-risk church participants, the primary goal is to reduce systolic BP by at least 4 mm Hg, reduce diastolic BP (secondary outcome) by at least 2 mm Hg, and reduce weight (secondary outcome) by at least 10 pounds from baseline in high-risk AA congregation. If successful, this intervention can be implemented in many other church settings with potentially tremendous impact on public health. We present here the newly FB-DASH program modified from the PREMIER trial.

026

THE IMPACT OF PATIENT EDUCATION AND PHYSICIAN EDUCATION ON BLOOD PRESSURE CONTROL

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Study Purpose. To assess the impact of patient education and physician education on blood pressure control in hypertension patients.

Methods. The study was composed of 349 hypertension patients, part of the patient body who are enrolled in the Baltimore Partnership Programs to Reduce CVD Disparities project. The study design is a 2 × 2 factorial trial: patients and their physicians were randomly assigned to either intervention or control group, where the intervention group received patient/physician education and control group did not. Blood pressures were measured at baseline and after one year, when the intervention of the first period was conducted. We used multiple regressions to assess the effects of interventions on blood pressure change, with outcome variable being absolute blood pressure reduction. The models were adjusted for sociodemographic variables.

Results. The majority of study subjects were patients who are Black (90.2%), female (67.9%), and under 65 years of age (73.1%). Mean pre- and post blood pressures were 148/89 mm Hg and 139/83 mm Hg, respectively. When controlling for other variables, SBP reduction was more steep among patients who received intervention (P=.0009). Physician education at this point does not appear to promote blood pressure reduction (P=.26).

Conclusions. In this patient sample, intervention at the patient level seems to be effective in blood pressure control.

027

THE IMPROVEMENT OF DIABETES CONTROL AND DISEASE PROCESS AWARENESS AS A RESULT OF FACE-TO-FACE VS MAIL INTERVENTION AMONG PATIENTS WITH DIABETES MELLITUS

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Study Purpose. The purpose of this study was: 1) To assess the impact of different educational methods on Hemoglobin A1c control in diabetic patients; 2) To determine which educational method was more effective for patient disease process awareness and management based on Diabetes Mellitus Knowledge Tool Test scores in diabetic patients.

Methods. Adult patients with type 2 diabetes were recruited from community-based primary care physician offices. The study subjects were a subset of those enrolled in the Baltimore Partnership Program to Reduce CVD Disparities project based on a minimum of one year of follow-up. Intervention patients received education either by face-to-face meeting or mail. Multiple regression models were used to assess the effects of different educational methods on change of HbA1c and patients' awareness and management of the disease process.

Results. Most of the patients were African American (90.77%), females (66.26%), and the mean age was 64.33 years. The HbA1c reduction was larger in patients who received informal face-to-face education (−1.19%), as compared to the patients who received mail education (−0.72%). The scores increased from baseline were greater in patients who received informal face-to-face education (18.90%), as compared to patients who received only mail education (14.40%). Both were significant at alpha 0.05.

Conclusions. There is a strong indication that increased knowledge and awareness coincide with the tighter HbA1c control. Patient educational programs based upon informal face-to-face interactions were more effective than programs where information is mailed to patients.