

Cardiometabolic Risk Factors in Ambulatory Patients in Primary Care

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PASCAR scientific congress
Mauritius, 3rd – 7th October 2015

Conflict of Interest

Study funded by a research grant from Sanofi

Background

- Rising Burden of NCDs in Africa
- Due to rise in risk factors as a result of epidemiologic transition.
- Risk factors largely asymptomatic hence low awareness rates
- Contact with patients presenting with intercurrent illness an opportunity for screening – often missed

Objectives

Prevalence of selected CMRF in patients attending primary care facilities in an urban setting:

- Hypertension
- Diabetes mellitus
- Dyslipidaemia
- Obesity
- Smoking status
- Chronic Kidney Disease

Methods 1

- 24 facilities in Nairobi randomly selected
- Every fifth eligible patient approached for consent to a target of 10 per facility
- Eligibility:
 - ≥ 35 years
 - Index visit for the current complaint/condition
- Written informed consent

Methodology 2

- Socio-demographic data
- Anthropometric measurements
- Fasting blood specimen: Sugar, Lipid profile, Serum Creatinine and Uric Acid
- eGFR calculated by modified MDRD formula

Data management and Analysis

- Data was entered and managed in study-specific database
- Statistical analysis was performed in SPSS version 21.0
- Continuous and categorical data were summarized into means/medians and percentages respectively
- Prevalence of cardiovascular risk factors were analyzed and presented as proportions with 95% confidence limits
- Risk factors were stratified by sex, diabetes and hypertension status and tested using chi square test
- Odds ratios were calculated to estimate the relative risk associated with each variable
- Statistical significance was interpreted at a $p \text{ value} \leq 0.05$.

RESULTS

Socio-Demographic characteristics

- 213 patients from 24 facilities

Variable	Measure	Number
Age	Mean (SD)	45 (9.4)
Gender	Males – n (%)	76 (35.7)
	Females – n (%)	137 (64.3)
Education	None – N (%)	5 (2.3)
	Primary	46 (21.6)
	Secondary	44 (20.7)
	High School	48 (22.5)
	University	64 (30)
	Don't know	6 (2.8)
Occupation	Unemployed	21 (9.9)
	Full time employed	98 (46)
	Part time employed	14 (6.6)
	Self employed	54 (25.4)
	Housewife	11 (5.2)
	Retired	5 (2.3)
	Don't know	10 (4.7)

Prevalence of RFs

Risk Factor	Prevalence-% (CI)
Hypertension	23.5 (18-29.5)
Diabetes	8 (4.7-12.5)
Dyslipidaemia	73.7 (67.3-79.5)
Obesity	34.9 (28.5-41.70)
Smoking	5.6 (2.9-9.6)
Abnormal kidney function	16.3 (11.5-22) - Stage 2-14.6 - Stage 3-1.4

- CKD stage 1 could not be ascertained, urinary albumin not done
- 57% hypertensives, 63% diabetics newly recognised
- Significant gender difference in:
 - Smoking: female 0.7%, male 14.5%; $p < 0.001$
 - Obesity: female 41.2, male 23.5; $P = 0.01$

Conclusions

- High prevalence of CMRF
- Most unrecognized
- Offers opportunity for opportunistic screening
- Equipping PHC for screening an important step in NCD control – Systems, equipment, training

Acknowledgements

- Sanofi
- Various health workers who participated.
- All the PATIENTS