INTRODUCTION

Hypertension is the most common cardiovascular condition in the world and the commonest non-communicable disease in Nigeria. The cardiovascular risks associated with hypertension are substantially modified by other risk factors.

AIM OF THE STUDY

This study aims to determine the cardiovascular risk factors in newly diagnosed hypertensive patients of Olabisi Onabanjo University Teaching Hospital (OOUTH) Sagamu, Nigeria.

MATERIALS AND METHOD

The study group consisted of 411 newly diagnosed hypertensive subjects and the control group was 214 subjects without hypertension. Relevant data using an interviewer-administered questionnaire was obtained. Blood pressure and anthropometric indices were measured. Electrocardiogram was done in all subjects and echocardiogram in selected subjects. Blood samples were taken for fasting lipid profile, fasting blood sugar, electrolytes, urea and creatinine and serum uric acid. Data analysis was performed using SPSS version 10.

RESULTS
The mean age of the hypertension group was 54.79±10.86 and 52.52±12.66 for the control group. Females constituted 59.1% in the hypertension group and 54.2% in the control group. In both groups, majority of the subjects were in class 3 socioeconomic status. The commonest cardiovascular risk associated with hypertension was obesity. Gross obesity was present in 165 (40.2%) subjects and abdominal obesity in 220 (53.5%). Hypercholesterolaemia was present in 153 (37.2%) subjects, low HDL-C in 148 (36.0%), high LDL-C in 115 (28.0%) and hypertriglyceridaemia in 35 (8.5%) subjects. Hyperuricaemia was present in 110 (26.8%) subjects, intake of alcohol in 101 (24.6%) subjects and 38 (9.2%) were smokers. Fourteen (3.4%) had Diabetes mellitus while 7 (1.7%) lived a sedentary lifestyle.

Some of the hypertensive subjects presented with target organ damage consisting of 88 (21.4%) left ventricular hypertrophy, stroke 21 (5.1%) and 2 (0.5%) with myocardial infarction.

Considering the three main risk factors: obesity, hypercholesterolaemia and diabetes mellitus, 126 (30.7%) had one risk factor, 94 (22.9%) had two risk factors and 6 (1.5%) had three risk factors.

With risk stratification, 178(43.3%) of hypertensive subjects were in the high risk category, with 180(43.8%) in the medium risk category and 53 (12.9%) in the low risk category.

Compared to control, the hypertension group had statistically significant higher mean total cholesterol, HDL-C, and LDL-C.
In the hypertension group, males had higher and statistically significant mean height, waist-hip-ratio, uric acid and level of activity. Females had higher and statistically significant mean BMI, hip circumference and HDL-C.

**CONCLUSION**

The findings of this study indicate that cardiovascular risk factors are common in healthy and hypertensive Nigerian subjects but more prevalent in hypertensive subjects. Large percentages (43.3%) of the newly diagnosed hypertensive subjects were in the high risk category and also presenting with target organ damage.

Efforts should be made for prevention, early diagnosis, and management of hypertension and its complications.

Implementation of a plan of patient education about cardiovascular risk factors by physicians into a daily routine of the cardiology unit is advocated.