

Blood pressure control in a general practice

To the Editor: The main aim of the prevention and treatment of hypertension is to prevent or minimise target organ disease, and thus decrease morbidity and mortality. In the latest version of the consensus document of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC VII, May 2003)¹, normal hypertension is defined as systolic blood pressure less than 120 mmHg and diastolic blood pressure less than 80 mmHg. Pre-hypertension is systolic pressure of 120-139 mmHg and/or diastolic pressure of 80-89 mmHg. Stage 1 hypertension is defined as 140-159/90-99 mmHg and stage 2 systolic blood pressure is 160 mmHg or higher or diastolic blood pressure 100 mmHg or higher.

The aim of this study was to determine the percentage of known hypertensives on hypertension medication in a general practice that have controlled blood pressure (systolic blood pressure below 140 mmHg and diastolic blood pressure below 90 mmHg).

Methods

This cross-sectional study was done at 3 Military Hospital, Bloemfontein on military staff, their dependants and retired staff who presented for any reason to one doctor at the Family Medicine Department over a six-month period. Only known hypertensives on hypertension treatment were included in the study. Patients with diabetes were excluded.

Blood pressure was measured at the end of the consultation, after the patient had been seated for at least five minutes. All measurements were made by one doctor using a stethoscope and wall-mounted sphygmomanometer. Two measurements were taken on the left arm and the second reading was recorded.

Patients gave written consent for participation and the doctor completed the questionnaire during the consultation. The protocol was approved by the Ethics Committee, Faculty of Health Sciences,

University of the Free State.

Results

One hundred and three patients ranging in age from 24 to 85 years (median 43 years) were evaluated. They were predominantly African (44.7%) and white (44.7%), while 10.7% were Coloured. Just over half (51.5%) were male. Only 22.3% indicated that they were smokers and 52.4% that they used alcohol.

Three-quarters (76.7%) of the patients had taken their hypertension medication on the day of evaluation and 12.6% had taken their last medication on the day before evaluation. The median time of treatment was 24 months, ranging from less than one month to 30 years. The most common hypertension medications were ACE inhibitors (64.1%), diuretics (58.3%), calcium channel blockers (19.4%) and beta-blockers (11.7%). The median systolic blood pressure was 142 mmHg (range 107 to 230 mmHg) and the median diastolic blood pressure was 96 mmHg (range 69 to 143 mmHg). Twenty-three patients (22.3%, 95% CI 14.3% to 30.4%) had systolic blood pressure below 140 mmHg and diastolic blood pressure below 90 mmHg.

Discussion

Despite the availability of new medication and increased awareness of the dangers of hypertension, many patients still do not have adequate blood pressure control. In the National Health and Nutrition Examination Survey (NHANES III), only 24% of the patients with a diagnosis of hypertension had blood pressure lower than 140/90 mmHg (2), a result similar to our finding of 22%.² According to the JNC VII, the initial medication should be a thiazide type diuretic.¹ In our study, only 58.3% of the patients were on diuretics and 64.1% were on ACE inhibitors. The JNC VII report also stresses the importance of eliminating and decreasing risk factors, such as smoking, alcohol use and dyslipidemia. Only 22.3% of the

participants in our study were smokers, but more than half (52.4%) used alcohol. A total of 12.6% were on cholesterol-lowering medication.

Many reasons have been cited why treated hypertensives do not have adequately controlled blood pressure.¹ In our study, 76.7% had taken their medication on the day of evaluation, which could indicate that patient co-operation is not the major problem in this population. An informed patient would be more willing to take medication regularly. Hypertension is a common condition, and there are an estimated 6 million hypertensives in South Africa.³ The control of hypertension is a necessity that should be a priority of each health care worker. Practitioners should act aggressively in adjusting medication when it is clear that a patient's blood pressure is not controlled, even if it requires additional drugs. In addition, risk factors such as smoking and drinking should be addressed, and hypercholesterolemia should be identified and treated. ✽

Marais C, MBChB, MFamMed
Department of Family Medicine,
University of the Free State

Joubert G, BA, MSc
Department of Biostatistics, University
of the Free State

Prinsloo EAM, MBChB, MFamMed
Department of Family Medicine,
University of the Free State

References

1. US Department of Health and Human Services. The seventh report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure. NIH Publication 03-5233; 2003.
2. Berlowitz DR, Ash AS, Hickey EC, et al. Inadequate management of blood pressure in a hypertensive population. *N Engl J Med* 1998;339:1957-62.
3. Steyn K. Epidemiology of hypertension in South Africa – new data. *CME* 1998;16:917-22.

Correspondence: Prof. Gina Joubert, Department of Biostatistics, University of the Free State, PO Box 339 (G31), Bloemfontein, 9300, Fax: 051-4012939, Tel: 051-4013117, e-mail: gnbgsj.md@mail.uovs.ac.za