

Prevalence, awareness, treatment and control of hypertension in Malaysia: A national study of 16,440 subjects

Abstract

Study design: A cross-sectional study was conducted in all states of Malaysia to determine the prevalence, awareness, treatment and control of hypertension. A stratified two-stage cluster sampling design with proportional allocation was used. Methods: Trained nurses obtained two blood pressure measurements from each subject. Hypertension was defined as mean systolic blood pressure ≥ 140 mmHg, diastolic blood pressure ≥ 90 mmHg, or a self-reported diagnosis of hypertension and taking antihypertensive medication. All data were analysed using Stata 9.2 software and took the complex survey design into account. A two-sided P-value of ≤ 0.05 was considered to be statistically significant. Results: The overall prevalence of hypertension for subjects aged ≥ 15 years was 27.8% (95% confidence interval (CI) 26.9–28.8). The prevalence of hypertension was significantly higher in males (29.6%, 95% CI 28.3–31.0) compared with females (26.0%, 95% CI 25.0–27.1). Multivariate logistic regression showed that the odds of having hypertension increased with increasing age, in males, in subjects with a family history of hypertension, with increasing body mass index, in non-smokers and with decreasing levels of education. Only 34.6% of the subjects with hypertension were aware of their hypertensive status, and 32.4% were taking antihypertensive medication. Amongst the latter group, only 26.8% had their blood pressure under control. The prevalence of hypertension amongst those aged ≥ 30 years has increased from 32.9% in 1996 to 40.5% in 2004. Conclusion: In Malaysia, the prevalence of hypertension is high, but levels of awareness, treatment and control are low. There is an urgent need for a comprehensive integrated population-based intervention programme to ameliorate the growing problem of hypertension in Malaysians.

Keyword: Hypertension; Epidemiology; Prevalence; Awareness; Treatment; Control; Malaysia.