

## **Antihypertensive prescribing pattern and blood pressure control among hypertensive patients over a ten year period in a primary care setting in Malaysia**

### **ABSTRACT**

Suboptimal control blood pressure (BP) leads to multiple complications. This study aims to examine BP control and the change in prescribing pattern of antihypertensive agents over a 10-year period. Data was obtained from the 10-year retrospective cohort of randomly selected adult patients registered with the Department of Primary Care Medicine Clinic at the University of Malaya Medical Centre. Demographic data, BP and anti-hypertensive drug use in 1998, 2002 and 2007 were captured from patient records. Target BP control was defined as BP <140/90mmHg for those with hypertension alone and <130/80mmHg for those hypertensives with concomitant diabetes mellitus or chronic kidney disease. A total of 886 hypertensives patients were recruited. The mean age was 57.2 years (SD±9.6); 63.1% were female. The mean BP at baseline and at the end of 10-year were 146 / 87 (18/10) mmHg and 136/80 (16/9) mmHg respectively. In 1998, 74.3%, 22.5% and 1.6% were on monotherapy, 2 agents and ×3 agents respectively. In 2007 after 10 years, 24.9%, 46.5% and 26.9% were on monotherapy, 2 agents and ×3 agents respectively. At the end of 10 years there was improvement in overall blood pressure control, increasing from 15.6% in 1998 to 43.7% in 2007. However, the control rate of BP is still far from optimal in spite of an increase in the number of agents per patients used over a 10 year follow-up. Based on our study the majority of patients with hypertension will need 2 or more agents to achieve target BP.

**Keyword:** Antihypertensive; Blood pressure control; Cohort; Hypertension; Malaysia; Prescribing; Primary care