Predictors of normotension on withdrawal of antihypertensive drugs in elderly patients: prospective study in second Australian national blood pressure study cohort

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Objectives: To identify simple long term predictors of maintenance of normotension after withdrawal of antihypertensive drugs in elderly patients in general practice.

Design: Prospective cohort study.

Setting: 169 general practices in Victoria, Australia.

Participants: 503 patients aged 65-84 with treated hypertension who were withdrawn from all antihypertensive drugs and remained drug free and normotensive for an initial two week period; all were followed for a further 12 months.

Main outcome measures: Relative likelihood of maintaining normotension 12 months after drug withdrawal; relative likelihood of early return to hypertension after drug withdrawal.

Results: The likelihood of remaining normotensive at 12 months was greater among younger patients (65-74 years), patients with lower "on-treatment" systolic blood pressure, patients on single agent treatment, and patients with a greater waist:hip ratio. The likelihood of return to hypertension was greatest for patients with higher "on-treatment" systolic blood pressure.

Conclusions: Age, blood pressure control, and the number of antihypertensive drugs are important factors in the clinical decision to withdraw drug treatment. Because of consistent rates of return to antihypertensive treatment, all patients from whom such treatment is withdrawn should be monitored indefinitely to detect a recurrence of hypertension.

What is already known on this topic

Systematic reviews have identified predictors of success of withdrawal of antihypertensive medication. The reviewed studies have mainly been in a hospital or specialist clinic setting, and their recommendations may not be practical in general practice.

What this paper adds

This study has identified simple predictors of success that are readily available to general practitioners. On-treatment systolic blood pressure, the number of blood pressure lowering drugs, and the age of the patient are reliable indicators of who may successfully stop taking their drugs. General practitioner practitioners should not be dissuaded from offering drug withdrawal to patients with greater waist:hip ratios.