Cochrane Corner

Organised systems of regular follow-up and review can improve blood pressure control

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The problem

Some time ago a colleague mentioned that most of my patients were unlikely to have their blood pressures below 140/90 for those on antihypertensive medication. While not wanting to believe it I conducted an audit on my patients and indeed there were many who were not reaching that target. Even for those at very high absolute risk there were some who were not at those levels. I acknowledge that it is often difficult to get blood pressure to low levels and this is in part due to the fact that our medications are far from optimal. Imagine a world where one medication could lower blood pressure to whatever you wanted simply by titrating the dose. The other issue is that patients start getting resistant when they have to take more medications. The review presented in this paper deals with clinical systems which is the other part of the equation.

Clinical bottom line

The systems that have been evaluated include (1) self-monitoring (2) educational interventions directed to the patient (3) educational interventions directed to the health professional (4) health professional (nurse or pharmacist) led care (5) organisational interventions that aimed to improve the delivery of care (6) appointment reminder systems. All appeared to be effective in getting lower patient blood pressures. One study had a follow-up for five years and showed a mortality benefit. Some of the methods described in the one trial that documented CVD outcomes used a whole range of methods to improve care, such as free visits and medication and providing transport. We may need to consider some of these in a utopian future where hypertension is well managed in primary care.

Table 1. Mortality benefit from a system for improving blood pressure control

Topic	Success	Evidence	Harms
Systems for improving management of blood pressure	NNT of 71 over five years to save one life through systems of improving blood pressure control. The intervention included stepped care, designed to provide rigorous, systematic, antihypertensive drug treatment by means of free care – visits, drugs, investigations, transport. Emphasis placed on: Clinic attendance and compliance – pill counts used. Convenience – low waiting times, paramedical personnel, physician on call. Stepped drug treatment – according to BP response. Patients seen at intervals – determined by their clinical status, at least every four months, and generally every two months.	One randomised trial[1] as part of a systematic review.[2]	Those expected with antihypertensive medication and more intensive management

NNT = numbers needed to treat

References

1. Hypertension Detection and Follow-up Program Cooperative Group. The effect of treatment on mortality in 'mild' hypertension Results of the Hypertension Detection and Follow-up Program. N Engl J Med 1982; 307(16):976-980.
2. Fahey T, Schroeder K, Ebrahim S. Interventions used to improve control of blood pressure in patients with hypertension. Cochrane Database of Systematic Reviews 2006, Issue 4. Art. No.: CD005182. DOI: 10.1002/14651858.CD005182.pub3.

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