


6 monthly scheduled follow up of hypertension was equivalent to 3 monthly scheduled follow up


Birtwhistle RV, Godwin MS, Delva MD, *et al.* Randomised equivalence trial comparing three month and six month follow up of patients with hypertension by family practitioners. *BMJ* 2004;**328**:204–9.


Clinical impact ratings GP/FP/Primary care ★★★★★☆


Q In patients with hypertension, are 3 monthly and 6 monthly scheduled follow ups by family practitioners equivalent in blood pressure (BP) control, treatment compliance, and patient satisfaction?


METHODS


 **Design:** randomised controlled equivalence trial.


 **Allocation:** {concealed*}†.


 **Blinding:** blinded (data collectors, outcome assessors, and data analysts).*


 **Follow up period:** 3 years.

 **Setting:** practices of 50 family practitioners in Kingston, Ontario, Canada.

 **Patients:** 614 patients who were 30–74 years of age with a diagnosis of essential hypertension, were taking ≥ 1 antihypertensive drug, and had controlled BP ($<140/90$ mm Hg in patients ≤ 40 y, $<150/95$ mm Hg in patients 41–59 y, and $<160/95$ mm Hg in patients ≥ 60 y) for ≥ 3 months before study entry. Exclusion criteria: pregnancy, hypertension follow up by a specialist, or opinion of family practitioner that patient could not be randomised to 6 month follow up because of other medical problems.

 **Intervention:** 3 month (n = 302) or 6 month (n = 307) follow up of BP by the patient's family practitioner. Patients were seen sooner if BP was out of control, other medical reasons existed for attending the family practitioner, or there was a change of drug.

 **Outcomes:** BP (proportion of patients judged to be out of control), patient satisfaction (questionnaire with 18 items pertaining to the consultation and 26 pertaining to the clinic plus specific questions regarding satisfaction with hypertension care and self measurement of BP), and adherence (assessed by pill count and questionnaire).

 **Patient follow up:** 609 patients received the intervention (mean age 56 y, 54% women); 583 patients (95%) were included in the intention to treat analysis.

*See glossary.
†Information provided by author.

MAIN RESULTS

Patients in the 6 month follow up group had fewer visits to the family practitioner than patients in the 3 month follow up group (mean visits per patient 16.2 v 18.8, $p < 0.001$). At baseline, 12, 24, and 36 months, mean BP measured by practitioners was equivalent between groups. The proportion of patients in whom practitioners judged BP to be out of control was similar between groups (table). The groups were equivalent for patient satisfaction with their care and

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6 month v 3 month follow up for hypertension judged to be out of control by family practitioners*

Follow up period	6 month follow up	3 month follow up	Difference (95% CI)
12 months	17%	21%	4% (–2.8 to 10)
24 months	23%	20%	3% (–3.3 to 10)
36 months	16%	18%	2% (–8.8 to 4)

*CI defined in glossary. Difference and CI calculated from data in article; all differences are not significant.

specifically for their hypertension care. The groups were also equivalent for adherence to treatment.

CONCLUSION

In patients with hypertension, 6 monthly scheduled follow up by family practitioners was equivalent to 3 monthly scheduled follow up for blood pressure control, treatment compliance, and patient satisfaction.

Commentary

The treatment of elevated BP is arguably the most effective preventive intervention a generalist will undertake, with the largest effect on public health. When developers of clinical guidelines formulate recommendations about management of patients with chronic illnesses or about preventive care, the duration between follow up visits is largely a matter of opinion. Investigators rarely test the effectiveness of different frequencies of follow up.

The study by Birtwhistle *et al.* from a mixture of rural and urban general practices in Canada, tackles this question in a randomised controlled trial, which was powered to establish equivalence in BP control and used a validated measure of patient satisfaction between patients allocated to 3 or 6 months of follow up. The study concluded that BP control and patient satisfaction were similar between the 2 groups. The difference in all consultations was only 2.5 visits over 3 years between groups.

Are the results valid for the patients in the study and can they be extrapolated to our patients? The internal validity of the study is only undermined by the relatively small difference in the number of consultations by patients in the 2 groups. Thus, interpreting equivalence in outcomes for patients with 3 and 6 month BP follow up is questionable, as is the decision to focus on BP control as the primary outcome, rather than the broader goal of management of hypertensive patients: reduction of global cardiovascular risk. Generalising the results to other patients is also problematic. Less than half the practices approached by the investigators were recruited and less than two thirds of eligible patients within those practices participated. Therefore we have to be cautious about extrapolating to all patients with elevated BP in general practice.

Despite these caveats, the study moves us from the realm of opinion about frequency of follow up to empirical findings. The message to clinicians is that a planned follow up every 6 months seems just as good (or bad) for blood pressure control as every 3 months, and that other considerations should be taken into account in determining when a patient should come back for review.

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