

# Decision aids reduced decisional conflict in patients with newly diagnosed hypertension

Montgomery AA, Fahey T, Peters TJ. A factorial randomised controlled trial of decision analysis and an information video plus leaflet for newly diagnosed hypertensive patients. *Br J Gen Pract* 2003;**53**:446–53.

**Q** Do simple or complex decision aids assist patients with newly diagnosed hypertension in deciding whether to start drug treatment?

## METHODS

**Design:** randomised controlled 2 x 2 factorial trial.

**Allocation:** concealed.

**Blinding:** unblinded.

**Follow up period:** 2 weeks and 3 months.

**Setting:** 21 general practices in Avon, UK.

**Patients:** 217 patients aged 30–80 years (mean age 58 y, 52% men) who had sustained high blood pressure (BP) requiring discussion of drug treatment with a general practitioner and were not taking antihypertensive medication. Exclusion criteria: severe hypertension requiring immediate treatment, secondary hypertension, pregnancy associated hypertension, inability to understand English, and dementia or learning difficulties.

**Interventions:** decision analysis (computerised utility assessment interview with individualised risk assessment and decision analysis) (n = 103) or no decision analysis (n = 114) and an information video plus leaflet (n = 106) or no video plus leaflet (n = 111). Interventions lasted 1 hour.

**Outcomes:** degree of uncertainty about treatment course of action (total score on the 16 item Decisional Conflict Scale [DCS]); anxiety; knowledge of hypertension; intention to begin treatment; actual treatment decision.

**Patient follow up:** 98% at 2 weeks and 92% at 3 months.

## MAIN RESULTS

Analysis was by intention to treat. At 3 months, 133 patients (67%) had been prescribed antihypertensives.

Decision analysis v no decision analysis and video plus leaflet v no video plus leaflet for decisional conflict in newly diagnosed hypertension at 2 weeks\*

Comparison	Mean total score	Adjusted difference (95% CI)†
Decision analysis v no decision analysis	27.6 v 38.9	–9.4 (–13.0 to –5.8)
Video plus leaflet v no video plus leaflet	30.3 v 36.8	–4.2 (–7.8 to –0.6)

\*CI defined in glossary.

†Adjusted for age, sex, decisional conflict at baseline, factorial design, and general practice.

At 2 weeks, patients who received decision analysis had less decisional conflict than patients who did not receive decision analysis (table); the groups did not differ for anxiety levels (mean score 34.8 v 36.8 out of 80, adjusted difference –2.8, 95% CI –5.6 to 0.1), intention to begin treatment (yes v unsure adjusted risk ratio 1.19, CI 0.59 to 2.40); no v unsure adjusted risk ratio 3.15, CI 0.91 to 10.98), or actual treatment decision (medication prescribed 67.7% v 66.0%, adjusted odds ratio 1.13, CI 0.59 to 2.19). Similar results were found for patients who received the video plus leaflet compared with those who did not.

Patients who received decision analysis as well as the video plus leaflet had less decisional conflict (unadjusted mean score 27.1) than patients who received decision analysis alone (28.2), video plus leaflet alone (33.3), or no intervention (44.2). Decision analysis and the video plus leaflet interacted (interaction coefficient 12.5, 95% CI 5.4 to 19.5, p = 0.001 for decisional conflict), suggesting a ceiling to the amount of information from which patients can benefit.

## CONCLUSION

Simple (video plus leaflet) or complex (decision analysis) decision aids each reduced decisional conflict in patients with newly diagnosed hypertension, but did not affect anxiety, intention to start antihypertensive treatment, or the actual treatment decision.

A modified version of this abstract appears in *Evidence-Based Medicine*.

## Commentary

Increasingly, patients are expected to have a greater role in healthcare decision making. Through increased knowledge, realistic expectations, and structured treatment options, decision aids can help increase patient participation.<sup>1</sup>

Montgomery *et al* evaluated 2 interventions to aid patients' hypertension treatment decisions, and found that patients who used decision aids better understood their condition and had lower levels of decisional conflict. This finding implies that they were more confident in their decision choices.

As a safeguard against poor quality advice, decision aids should be based on robust research evidence. The quality of the evidence underpinning the interventions in the study by Montgomery *et al* is difficult to judge.

The use of a factorial design in this study confers the advantage of efficiency by allowing 2 trials within a single sample as a 2 arm trial. In this study, however, there was an interaction between the video/leaflet and the decision analysis, such that the effect of each intervention was reduced in the presence of the other. Despite reducing conflict, improving knowledge, and increasing confidence, the use of decision aids did not alter the actual decisions made. This suggests that the benefits of decision aids are limited primarily to conflict resolution or that the decision choices already considered by the patient concurred with the results of the decision analysis. The clinical significance of any gains is unclear. Without an economic analysis of the costs associated with the benefits, it is difficult to judge the overall benefits of the decision aids assessed in this study.

Ultimately, if decision support helps patients become more involved in the decision making process, long term benefits such as informed patients who understand their condition and are confident in their treatment decisions may outweigh the costs.

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1 O'Connor AM, Stacey D, Entwistle V, *et al*. Decision aids for people facing health treatment or screening decisions. *Cochrane Database Syst Rev* 2003;(2):CD001431.

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Source of funding: UK Medical Research Council.