

# Educational workshops and decision support software increase detection of dementia in the elderly in primary care settings










Downs M, Turner S, Bryans M, *et al.* Effectiveness of educational interventions in improving detection and management of dementia in primary care: cluster randomised controlled study. *BMJ* 2006;**332**:692–5.



This article contains extra text on the EBMH website

**Q** Does educating primary care workers in investigating and managing dementia in the elderly increase detection rates and adherence to diagnosis and management guidelines?

## METHODS

	<b>Design:</b> Cluster randomised controlled trial (by general practice).
	<b>Allocation:</b> Concealed.
	<b>Blinding:</b> Unblinded (once baseline data were collected).
	<b>Follow up period:</b> Nine months.
	<b>Setting:</b> Thirty six UK general practices; 1999 to 2002.
	<b>Patients:</b> 450 people aged 75 and over registered at 36 general practices who were diagnosed with dementia or probable dementia.
	<b>Intervention:</b> Three educational interventions for primary care workers: tutorial on a CD-ROM (8 practices); decision support software built into the electronic medical records prompting investigation and management of dementia (8 practices); educational workshops (10 practices). The control group was contacted for data collection only (10 practices).
	<b>Outcomes:</b> Dementia detection rates; concordance with UK evidence based guidelines measured using concordance scores (how many of 10 diagnosis and 7 management best practice items were addressed and recorded during consultations—for example, cognitive testing, use of antedementia medication). Outcomes were assessed for the periods before and nine months after the intervention using medical records.
	<b>Patient follow up:</b> 35/36 practices (97%).

## MAIN RESULTS

Integrated decision support software and workshops significantly increased detection rates of dementia in the elderly compared with no intervention (decision support software *v* control  $p=0.02$ ; workshops *v* control  $p=0.01$ ). There was no significant difference in detection rates between the CD-ROM and control groups ( $p=0.18$ ). There were no significant differences between groups for diagnosis and management guidelines concordance after the interventions ( $p=0.4$  for diagnosis;  $p=0.3$  for management; see <http://www.ebmentalhealth.com/supplemental> for table).

## CONCLUSIONS

Decision support systems incorporated into medical record software and practice based workshops increase detection rates of dementia in

.....

For correspondence: Murna Downs, Bradford Dementia Group, Division of Dementia Studies, School of Health Studies, University of Bradford, Bradford BD5 0BB, UK; [m.downs@bradford.ac.uk](mailto:m.downs@bradford.ac.uk)

Sources of funding: Alzheimer's Society (Alexander and Christina Dykes Project Grant).

the elderly in primary care. These programmes do not improve adherence to best practice guidelines.

## Commentary

Recent years have witnessed a burgeoning of literature on the diagnosis and management of dementia in general practice.<sup>1–4</sup> There is a consensus that diagnosing and managing dementia in primary care is difficult and that most general practitioners (GPs) need and welcome education in this area.<sup>5–7</sup> Different approaches to GP education have been identified but the best approach for effective primary care practice has, until recently, been unknown.<sup>8 9</sup>

Downs *et al* move the debate forward with a well conceptualised and operationalised evaluation of three different educational approaches: (1) CD-ROM electronic training; (2) decision support software; and (3) practice based workshops. In the study, two outcome measures are identified—dementia detection rates and concordance with best practice guidelines on diagnosis and management. What is original and exciting about this work is that it provides unequivocal evidence that GP training is effective in improving dementia detection rates but not in terms of compliance with best practice guidelines. Practice based workshops and decision support software appear to best increase GPs' detection rates. However, the response rate was low (28%) and although the Scottish sample appears representative of all relevant local practices this is not the case for the London sample, which puts into question the generalisability of the results.

It is difficult undertaking research with GPs. Downs *et al* must be commended for breaking new ground and for tackling a complex area in such a rigorous way. As to whether results will change practice in terms of GP training, it seems that, based on these findings, the trend will now be to avoid self-directed training and opt for decision support software programmes and more interactive workshops.

Suzanne Cahill PhD  
The Dementia Services Information and Development Centre & Trinity College Dublin, Ireland

- De Lepeleire J, Heyrman J. Diagnosis and management of dementia in primary care at an early stage: The need for a new concept and an adapted structure. *Theor Med Bioeth* 1999;**20**:215–28.
- Iliffe S, Walters K, Rait G. Shortcomings in the diagnosis and management of dementia in primary care: Towards an educational strategy. *Aging Ment Health* 2000;**4**:286–91.
- Braekhus B, Engedal K. Diagnostic work-up of dementia—a survey among Norwegian general practitioners. *Brain Aging* 2002;**2**:63–7.
- Turner S, Iliffe S, Downs M, *et al.* General practitioners' knowledge, confidence and attitudes in the diagnosis and management of dementia. *Age Ageing* 2004;**33**:461–7.
- Vernooij-Dassen M, Moniz-Cook E, Woods R, *et al.* Factors affecting timely recognition and diagnosis of dementia across Europe: from awareness to stigma. *Int J Geriatr Psychiatry* 2005;**20**:377–86.
- Cahill S, Clark M, Walsh C, *et al.* Dementia in primary care: The first survey of Irish general practitioners. *Int J Geriatr Psychiatry* 2006;**21**:319–24.
- Cody M, Beck C, Shue VM, *et al.* Reported practices of primary care physicians in the diagnosis and management of dementia. *Aging Ment Health* 2002;**6**:72–6.
- Iliffe S, Wilcock J, Austin T, *et al.* Dementia diagnosis and management in primary care: developing and testing educational models. *Dementia: Int J Soc Res Pract* 2002;**1**:11–23.
- Manthorpe J, Iliffe S, Eden A. The implications of the early recognition of dementia for multiprofessional teamworking: conflicts and contradictions in practitioner perspectives. *Dementia: Int J Soc Res Pract* 2003;**2**:163–79.