The Caring for Aged Dementia Care Resident Study (CADRES), published in this issue of The Lancet Neurology, is a cluster-randomised clinical trial in which 324 people with dementia in residential care were randomly assigned one of three treatments: person-centred care, dementia-care mapping, or usual care. Person-centred care puts the person with dementia at the centre of the care-planning process and the care they receive, respecting their wishes and needs as an individual. Dementia-care mapping is a specific assessment tool and philosophy designed to improve person-centred care. Both interventions improved agitation compared with usual care at the end of the 4-month treatment phase and over a further 4-month follow-up, and dementia-care mapping was associated with fewer falls.

Previous work has shown that person-centred care interventions can reduce the use of antipsychotic drugs in people with dementia, but the current study also shows a significant improvement in agitation. Dementia-care mapping is widely used to develop practice and has been used as a measure of quality of life in research, and open studies have also indicated the value of dementia-care mapping as part of an audit cycle. The newest and most important feature of CADRES is the investigation of dementia-care mapping, with assessment and feedback, as a specific intervention in a randomised controlled trial.

The improvements in agitation are extremely encouraging and emphasise the importance of further trials with dementia-care mapping. Various care-home interventions, including staff training, exercise, positive-activities, and person-centred care, have had significant effects on important outcomes such as agitation, depression, drug prescription, and unmet needs, but the benefits have been difficult to sustain beyond the duration of the intervention, and routine implementation of any of these interventions in routine clinical practice or social care is difficult. Dementia-care mapping is particularly appealing as an intervention approach, because it is already widely implemented in clinical practice. Furthermore, the sustaining of benefits beyond the intervention period is encouraging.

CADRES is an extremely important trial that might greatly affect clinical practice. However, important caveats must be taken into account. First, the comparison of the intervention with usual care is problematic because there are probably non-specific benefits from any intervention. An education-alone intervention might have been a preferable comparator, because it would probably have minimum effect but control for non-specific benefits. Second, the duration of intervention was brief, and longer treatment and follow-up are needed to determine the value of ongoing interventions in clinical practice. Third, the lack of benefit for psychiatric and behavioural symptoms other than agitation and the absence of any reduction in use of antipsychotics or other psychotropic drugs were disappointing. Furthermore, as in most other trials in dementia care, direct improvement in quality of life of care-home residents was rare. Relative to that in CADRES, treatment was longer and more intensive in the Focused Intervention Training and Support (FITS) trial of person-centred care, which showed substantial reduction in antipsychotic use. Therefore, intensive person-centred care might be needed to change prescription practice. Non-pharmacological interventions, such as exercise and pleasant events, influence other neuropsychiatric symptoms, such as depression; a combination of elements from different approaches might be needed to obtain the greatest benefits to residents of care homes.

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Despite the caveats, CADRES is of major importance in showing the value of dementia-care mapping as an effective approach to reducing agitation in care-home residents with dementia. Further research should build on this finding to develop an intervention that can improve other neuropsychiatric symptoms, reduce inappropriate prescribing of psychotropic drugs, and hopefully lead to direct improvement in the quality of life of care-home residents.

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Hemicraniectomy for hemispheric infarction and the HAMLET study: a sequel is needed

Hemicraniectomy for large hemispheric infarction can be thought of as a radical, life-saving measure, but there is continuing debate about its appropriateness. The results of observational studies suggest there is a reduction in mortality, with associated functional gains, in patients with malignant cerebral oedema, but many physicians have been reluctant to do what they believe is a heroic but potentially futile procedure, except in a few selected patients. This ongoing debate shows the need for randomised studies.

To clarify the efficacy of hemicraniectomy, the investigators in the DECIMAL1 (DEcompressive Cranietomy In MALignant middle cerebral artery infarcts), DESTINY2 (DEcompressive Surgery for the Treatment of malignant INfarction of the middle cerebral arterY), and HAMLET3 (Hemicraniectomy After Middle cerebral artery infarction with Life-threatening Edema Trial) studies took the much-needed step of randomly assigning patients to surgical decompression or to medical or observational therapies. In a pooled analysis of these three small European trials, surgical decompression within 48 h of large middle cerebral artery infarction doubled the chance of good outcome (modified Rankin scale [mRS] score of 3 or less).4 Although the survival rate was improved after hemicraniectomy, the pooled analysis did not completely resolve the ongoing dilemmas regarding the selection of patients. Whether treatment could be given later than 48 h post-stroke was one unanswered question that is particularly relevant because post-stroke oedema often peaks after 48 h. Other ongoing selection issues include the effects of age and medical comorbidities, the benefit of surgery on dominant versus non-dominant hemispheric stroke, and the long-term benefits on quality of life.

The HAMLET investigators, and those in the other clinical trials, have struggled to show that the benefits of hemicraniectomy on survival rate are not outweighed by living with poor quality of life. And, although the final results of HAMLET, which are reported in this issue of The Lancet Neurology,1 might help physicians to decide on the benefits of surgery, many problems remain. The current report shows that case fatality was reduced, but only those patients who were treated within 48 h of stroke had improved functional outcome. Furthermore, quality of life and mood were assessed in HAMLET but not the other two studies, and symptoms of depression were high, despite medical or surgical intervention. Subgroup analysis was limited by the small number of patients enrolled in HAMLET, and few conclusions about the data can be made. In particular, only 25 (40%) of the patients were included in the HAMLET study after 48 h from stroke onset, so we cannot draw any conclusions about the benefit or harm of surgery when it is delayed from 48 to 96 h. In addition to the time factor, the small sample size precluded any conclusions with regard to patient characteristics such as