



are achieved when young people and their families are engaged with the service and motivated to take part in the treatment offered, and when the admission is planned (Green *et al*, 2001). These conditions are difficult to fulfil for an emergency admission. It is important therefore that unplanned admissions do not become the norm in adolescent psychiatry, as they are in adult mental health services in the UK.

In conclusion, despite an increase in dedicated emergency admission beds there has been little change in the capacity of adolescent units across England and Wales to admit young people in an emergency. The majority of young people assessed to require immediate admission do not receive it. We argue that the solution should be the provision of specialist acute admission units for young people.

## Declaration of interest

None.

## Acknowledgements

We thank Brenda Dummer for her work in administering the 2000 survey, and colleagues for responding to the questionnaire.

## References

- CORRIGALL, R. & MITCHELL, B. (2002) Service innovations: rethinking in-patient provision for adolescents. *Psychiatric Bulletin*, **26**, 388–392.
- COTGROVE, A. (1997) Emergency admissions to a regional adolescent unit: piloting a new service. *Psychiatric Bulletin*, **21**, 604–608.
- DEPARTMENT OF HEALTH (2004) *National Service Framework for Children, Young People and Maternity Services*. TSO (The Stationery Office).
- FARR, H. & O'HERLIHY, A. (2004) *Unit Directory* (2nd edn), College Research Unit. Royal College of Psychiatrists.
- GOWERS, S., SYMINGTON, R. & ENTWISTLE, K. (1991) Who needs an adolescent unit? A referrer satisfaction study. *Psychiatric Bulletin*, **15**, 537–544.
- GOWERS, S. G., CLARKE, J., ALLDISS, M., *et al* (2001) In-patient admission of adolescents with mental disorder. *Clinical Child Psychology and Psychiatry*, **6**, 537–544.
- GOWERS, S. G. & COTGROVE, A. J. (2003) The future of in-patient child and adolescent mental health services. *British Journal of Psychiatry*, **183**, 479–480.
- GREEN, J., KROLL, L., IMRIE, D., *et al* (2001) Health gain and outcome predictors during in-patient and related day treatment in child and adolescent psychiatry. *Journal of American Academy of Child and Adolescent Psychiatry*, **40**, 325–332.
- O'HERLIHY, A., WORRALL, A., LELLIOTT, P., *et al* (2003) Distribution and characteristics of in-patient child and adolescent mental health services in England and Wales. *British Journal of Psychiatry*, **183**, 547–551.
- WORRALL, A., O'HERLIHY, A., BANERJEE, S., *et al* (2004) Inappropriate admission of young people with mental disorder to adult psychiatric wards and paediatric wards: cross section study of six months' activity. *BMJ*, **328**, 867–868.
- \*Andrew Cotgrove** Clinical Director and Consultant in Adolescent Psychiatry, Pine Lodge Young People's Centre, 79 Liverpool Road, Chester CH2 1AW, email: andy.cotgrove@cwprnt.nhs.uk, **Rachel McLoughlin** Consultant in Child and Adolescent Psychiatry, Adcote House, Wirral, **Anne O'Herlihy** Research Fellow, **Paul Lelliott** Director, Royal College of Psychiatrists' Research and Training Unit, London

*Psychiatric Bulletin* (2007), **31**, 459–462. doi: 10.1192/pb.bp.106.012484

DARREN MALONE, PAUL BRADLEY AND JAMES LINDESAV

# Olanzapine and risperidone prescriptions for people with dementia in care

## AIMS AND METHOD

To determine what has happened to care home residents with dementia who were on risperidone or olanzapine prior to the Committee on the Safety of Medicines (CSM) guidance, and to compare with a previous audit of the practice within a community mental health team (CMHT) for older people. Residents with dementia were identified from 10 randomly selected care homes in Leicestershire, and prescriptions before and 9 months after the CSM guidance were assessed. Carers were interviewed to determine who was reviewing residents and how often a review occurred.

## RESULTS

In total, 330 residents' medication charts were assessed; 164 (50%) had documentation which identified them as having a dementia; 75 of these residents with dementia (46%) were on an antipsychotic at some time during the audit period. Before CSM advice 69% (37 out of 54) of the antipsychotics prescribed to residents with dementia were either risperidone or olanzapine; this reduced to 39% (19 out of 49) after the CSM advice. Out of those who continued on risperidone or olanzapine, the majority were under GP care only (15 out of 19) and overwhelmingly seen

on an as-required basis and infrequently. In two-thirds of cases the prescriptions for antipsychotics were for behavioural and psychological symptoms of dementia. Compared with the CMHT for older people, primary care was less successful at withdrawing risperidone or olanzapine.

## CLINICAL IMPLICATIONS

Further research is needed to clarify what approach would be most acceptable and cost-effective to assist British GPs in the management of this patient population.

At some point during their illness 90% of patients with dementia develop a behavioural disturbance (Ballard & Oyebode, 1995). These behavioural and psychological

signs and symptoms of dementia (Finkel *et al*, 1996) are varied in presentation and aetiology, and encompass three syndromes, two behavioural (overactivity and



original papers

aggression) and one psychotic (Hope *et al*, 1997). Approximately one-third of people with dementia in UK residential and nursing homes are prescribed antipsychotics, often without adequate monitoring (Furniss *et al*, 1998). Over recent years, concerns about the safety and efficacy of typical antipsychotics such as haloperidol have led many clinicians to abandon these drugs in favour of the newer atypical antipsychotics such as risperidone and olanzapine.

In 2004 the Committee on the Safety of Medicines (CSM) estimated that 39 000 patients with dementia in the UK were being prescribed either risperidone or olanzapine. They reported an analysis of data from several randomised controlled trials (RCTs) of these two drugs and recommended that neither should be used for treatment of behavioural symptoms in dementia because of increased risk of cerebrovascular adverse events and, in the case of olanzapine, a doubling of the mortality rate (Committee on the Safety of Medicines, 2004). They also advised that risperidone and olanzapine for the management of acute psychosis in older people with dementia should be short term and under specialist supervision. In response, the Royal College of Psychiatrists issued guidelines recommending, where possible, a gradual withdrawal of risperidone and olanzapine over 2–4 weeks, citing evidence from RCTs that 45–70% of residents in care homes receiving antipsychotics can be safely withdrawn from medication with no adverse consequences (Royal College of Psychiatrists, 2004a,b).

A recent audit of patients under the care of South Charnwood community mental health team for older People in Leicestershire (which included persons both at home and in care homes) has demonstrated that, of those with dementia and prescribed olanzapine or risperidone, 58% were able to discontinue antipsychotic treatment completely, and 16% had their medication changed successfully to a benzodiazepine (details available from authors). To examine what was happening to individuals with dementia primarily under general practice care we repeated the audit in care homes.

## Method

Ten care homes were selected at random from a list of all of those in Leicestershire. Each care home and the respective GP practices were sent a letter informing them of the audit and seeking permission to visit the homes and inspect residents' prescription records, both current and prior to CSM advice.

Using a standardised tool the current prescriptions were compared with the prescriptions in the weeks prior to the CSM advice (a gap of 9 months). Owing to difficulty accessing GP computer systems it was not possible to compare GP records with the prescription at the place of care.

The diagnosis of dementia was based on clinical information available at the home, for example from social workers' reports, hospital discharge summaries, etc. If there was no documentation stating a diagnosis of

dementia then the resident was deemed not to have dementia. The senior carer was interviewed to determine the extent of follow-up (i.e. whether under community mental health team (CMHT) or GP review), frequency of review, and reason for the antipsychotic prescription. We found no clear guidelines regarding medication review of older people with dementia. The level of review was categorised as inadequate if the resident was seen less frequently than 6 monthly, or the date of the next review was not known. The cut-off of 6 months is in line with the National Service Framework for older people, which recommends that all people over 75 years and on four or more medicines should have a medication review every 6 months (Department of Health, 2001). The average age of residents in care homes in the UK is 84 years (Bajekal, 2002) and residents are prescribed on average six medications each (Furniss *et al*, 1998).

## Results

A total of 330 resident's medication charts were reviewed. Out of these individuals, 164 (50%) had documentation which identified them as having a dementia; 75 of the 164 residents with a diagnosis of dementia (46%) were on an antipsychotic at some point in time during the audit period; 11 of the 75 were not resident before the CSM advice and so were removed from the analysis. The antipsychotics prescribed and reasons for their prescription are summarised in Tables 1 and 2.

With regard to follow up, CMHTs had been involved in the care of 59% (38 out of 64) of residents with a diagnosis of dementia and on antipsychotics (at some point during the audit period). The CMHTs were currently involved with the majority of the residents who had recently been placed within care (6 out of 11). Of the residents with a diagnosis of dementia and currently on

**Table 1. Antipsychotic prescriptions for residents (n=319) before and after the Committee on the Safety of Medicines guidance**

	Before guidance	After guidance
Risperidone, <i>n</i>	24	9
Olanzapine, <i>n</i>	13	10 (2 new)
Quetiapine, <i>n</i>	3	5
Amisulpiride, <i>n</i>	1	1
Haloperidol, <i>n</i>	2 (+3 as 2nd antipsychotic)	6 (+2 as 2nd antipsychotic)
Promazine, <i>n</i>	3 (+3 as 2nd antipsychotic)	6 (+2 as 2nd antipsychotic)
Sulperide, <i>n</i>	7	11
Flupenthixol, <i>n</i>	1	1
Chlorpromazine, <i>n</i>	0 (+1 as 2nd antipsychotic)	0
No antipsychotic, <i>n</i>	10	15
Total, <i>n</i>	64 (5 on 2 antipsychotics)	64 (3 on 2 antipsychotics)
On olanzapine or risperidone <i>n/N</i>	37/54	19/49
Atypical:typical ratio	3.1:1	1.04:1



Table 2. Reasons for antipsychotic prescriptions

	Psychosis <i>n/N (%)</i>	Behavioural and psychological symptoms of dementia <i>n/N (%)</i>	Not clear <i>n/N (%)</i>
All antipsychotics	17/64 (27)	41/64 (64)	6/64 (9)
Ever on risperidone or olanzapine	9/39 <sup>1</sup> (23)	28/39 (72)	2/39 (5)
Continue on risperidone or olanzapine	7/19 (37)	11/19 (58)	1/19 (5)

1. Includes 2 new prescriptions for olanzapine.

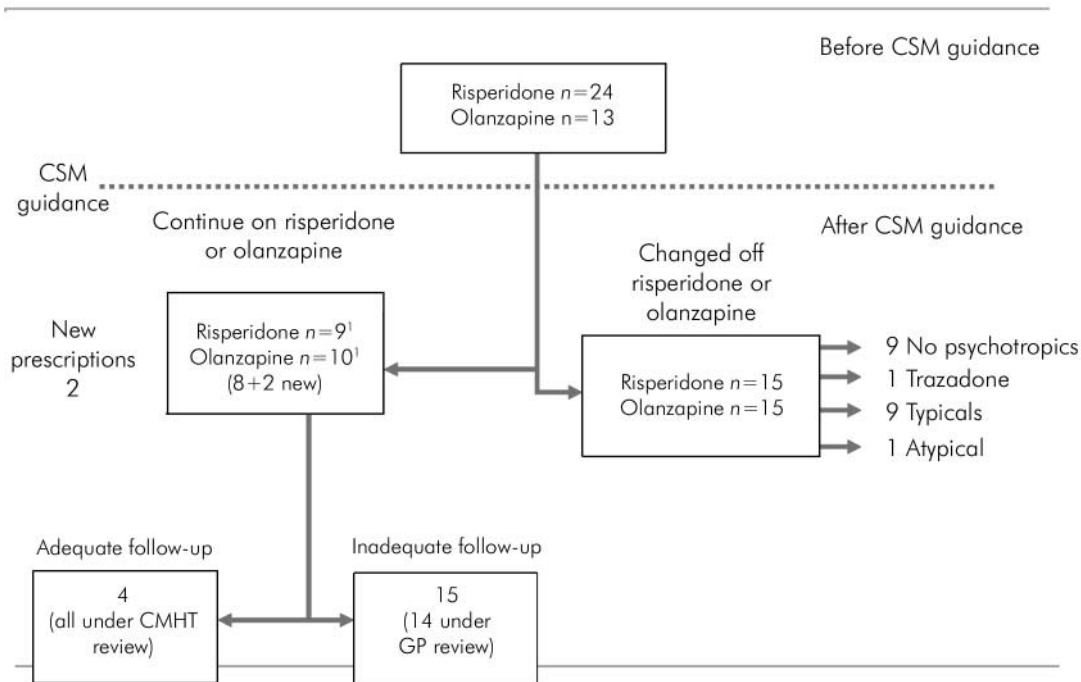


Fig. 1. Outcome for residents who were on risperidone and olanzapine before the Committee on the Safety of Medicines (CSM) guidance. 1. There were attempts to withdraw these medications in 4 of the 9 who continue on risperidone and 2 of the 8 who continue on olanzapine.

an antipsychotic ( $n=49$ ), 39 were under GP review only and 10 were under CMHT review.

The outcome for residents who were on risperidone or olanzapine before the CSM advice is summarised in Fig. 1. Before CSM advice 69% (37 out of 54) of the antipsychotics prescribed to residents with a diagnosis of dementia were either risperidone or olanzapine. This reduced to 39% (19 out of 49) after the CSM advice, and resulted in a significant drop in the atypical to typical antipsychotic ratio, from 3.1:1 before CSM to 1.04:1 after CSM.

Of the 19 who continued on risperidone or olanzapine, the vast majority were under GP review only (15 out of 19). Although there was an attempt to withdraw these antipsychotics in some ( $n=6$ ), the majority were categorised as receiving inadequate review (15 out of 19). Of the 15 receiving inadequate review, 14 were under GP review only, which is statistically highly significant ( $P=0.001$  Fisher's exact test). Moreover, 13 of the 15 receiving inadequate review were also under review 'as

required'. In comparison, only 1 of the 4 residents who were receiving adequate review (i.e. more frequently than 6 monthly) were seen only as required. This difference again was significant ( $P=0.037$ , Fisher's exact test).

## Discussion

This study was an examination of current guidelines regarding antipsychotic prescription to patients with dementia, and makes no comment on the appropriateness or otherwise of these guidelines. Recent evidence, from a large retrospective cohort study, does not support the CSM warning that atypical antipsychotics (when prescribed to patients with dementia) are associated with an increased risk of stroke (Gill et al, 2005). However, in another cohort study, involving 22 890 older patients, those receiving typical antipsychotics compared with atypicals had a significantly higher adjusted risk of death at all three intervals studied (Wang et al, 2006).

original  
papers

Whatever the rationale for the CSM guidelines, they have prompted a welcome reconsideration of anti-psychotic use in this vulnerable population. It is of concern that 46% of residents with dementia in the care settings examined here are receiving antipsychotics, often without adequate review. It is also concerning that 64% of residents with dementia are being prescribed antipsychotics for behavioural symptoms and not for psychosis. The extent to which CSM guidelines have been followed is patchy. For the majority of residents with dementia who were on risperidone or olanzapine, an attempt at withdrawal was made, but for 30% there was no such attempt. It is noteworthy that the two new prescriptions for olanzapine were for psychosis. In this community sample there was less success in withdrawing antipsychotics compared with specialist practice in a CMHT for older people (details available from authors); for example, only one resident was successfully changed to a different psychotropic drug treatment (trazadone).

Current practice indicates that CMHTs discharge a patient with dementia who is resident in a care facility fairly quickly. Thereafter, almost all of these patients, who are under GP care, are seen as required, with no set review date, or are seen only 6 monthly or less often. It is possible that a patient with dementia who is experiencing side-effects from a prescribed antipsychotic will not be followed up at all, unless there is a concurrent problem requiring GP review. The importance of review of such patients was one of the reasons for the Omnibus Budget Reconciliation Act 1987 regulations (OBRA 87) in the USA (Burke, 1991). These regulations set out indications for antipsychotic prescription to residents of nursing homes, including the need to try a non-pharmacological alternative prior to prescription and an enforced gradual dose reduction after 6 months of antipsychotic therapy. Four follow-up studies after OBRA 1987 have consistently demonstrated a decrease of about 30% in antipsychotic prescribing (Furniss et al, 1998).

Other proven effective strategies aimed at reducing antipsychotic prescriptions in residential settings are educational programmes (on psychopharmacology), pharmacist involvement and non-pharmacological interventions (Furniss et al, 1998). Further research is needed to clarify what approach would be most acceptable and cost-effective to assist British GPs in the management of this patient population. In the meantime we would encourage the 3 T approach to antipsychotic prescribing as outlined in the Royal College of Psychiatrists guidelines

(Royal College of Psychiatrists, 2004b), namely specified targeted symptoms, titrated doses, and time-limited prescription with a clear date for review and/or an attempt at dose reduction.

## Declaration of interest

None.

## References

- BAJEKAL, M. (2002) *Health Survey for England 2000. Care Homes and Their Residents*. TSO (The Stationery Office).
- BALLARD, C. & OYEBODE, F. (1995) Psychotic symptoms in patients with dementia. *International Journal of Geriatric Psychiatry*, **10**, 743–752.
- BURKE, W. J. (1991) Neuroleptic drug use in the nursing home: impact of OBRA. *American Family Physician*, **43**, 2125–2130.
- COMMITTEE ON THE SAFETY OF MEDICINES (2004) *Atypical Antipsychotics and Stroke*. Medicines and Healthcare products Regulatory Agency.
- DEPARTMENT OF HEALTH (2001) *Medicines and Older People. Implementing Medicines-Related Aspects of the National Service Framework for Older People*. Department of Health. [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_4008020](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4008020)
- FACULTY OF THE PSYCHIATRY OF OLD AGE (2004a) *Atypical Antipsychotics and BPSD: Prescribing guidelines for Old Age Psychiatrists*. Royal College of Psychiatrists. <http://www.rcpsych.ac.uk/pdf/Atypicalguidance.pdf>
- FACULTY OF THE PSYCHIATRY OF OLD AGE (2004b) *Atypical Antipsychotics and Behavioural and Psychiatric Symptoms of Dementia: Prescribing Update for Old Age Psychiatrists*. Royal College of Psychiatrists. <http://www.rcpsych.ac.uk/pdf/BPSD.pdf>
- FINKEL, S. I., COSTA E SILVE, J., COHEN, G., et al (1996) Behavioural and psychological signs and symptoms of dementia: a consensus statement on current knowledge and implications for Research and treatment. *International Psychogeriatrics*, **8** (suppl. 3), 497–500.
- FURNISS, L., CRAIG, S. K. & BURNS, A. (1998) Medication use in nursing homes for elderly people. *International Journal of Geriatric Psychiatry*, **13**, 433–439.
- GILL, S. S., ROCHON, P. A., HERRMANN, N., et al (2005) Atypical antipsychotic drugs and risk of ischaemic stroke: population based retrospective cohort study. *BMJ*, **330**, 445–450.
- HOPE, T., KEENE, J., FAIRBURN, C., et al (1997) Behavioural changes in dementia 2: are there behavioural syndromes? *International Journal of Geriatric Psychiatry*, **12**, 1074–1078.
- WANG, P., SCHNEEWEISS, S., AVORN, J., et al (2006) Risk of death in elderly users of conventional vs. atypical antipsychotic medications. *New England Journal of Medicine*, **353**, 2335–2341.

\***Darren Malone** Consultant Psychiatrist and Honorary Lecturer (Leicester University), Mental Health Services for Older People, Elderly Services Centre, Rotorua Hospital, Private Bag 3023, Rotorua, New Zealand, **Paul Bradley** Research Assistant, Leicester University, Department of Health Sciences, Leicester General Hospital, UK, **James Lindesay** Professor of Psychiatry for the Elderly, Leicester University, Department of Health Sciences, Leicester General Hospital, UK