those with severe dementia may not have been recognised. Although BPSD were not associated with severity of dementia assessed by the FAST,[2] we notice a possible difference between those of stages 3–5 (mean total BEHAVE-AD score over admission: 2.4) and the more severe stages (means 3.6, 3.4 and 3.7, respectively, for stages 6a–c, 6d–e and 7a–f).

We agree the BEHAVE-AD scale has shortcomings; for example, it misses apathy and disinhibition.[3] Our choice was pragmatic, based on ease of administration and available staff time. The Neuropsychiatric Inventory has more detailed items on agitation and aggression, but we also used the Cohen–Mansfield Agitation Inventory to characterise agitated behaviour (details available from the authors on request) and wished to avoid duplicating data collection. We would like to highlight that most of our cohort did not come from residential or nursing care; 67% were admitted from their own home (Table 2).[1]

Although admission is overall a negative experience, the precipitating illness may require hospital treatment. We had no data on BPSD prior to admission or how they would have evolved in another setting. Teasing out which elements of the admission have the strongest influence on poor outcomes, or whether the physical illness causing the admission produces negative effects, would require further investigation. Unfortunately, the answers to these questions will be complex and methodologically challenging to define properly.

There is recent evidence that improving the hospital environment for people with dementia is worthwhile.[4] We hope our paper provides information to inform more effective interventions.

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More data on speed of remission with ECT in geriatric depression

We appreciate the important contribution of Spaans *et al*[1] to the evidence that electroconvulsive therapy (ECT) is a rapidly acting treatment in geriatric depression. Their data are a reminder that, despite the recent excitement about other neuromodulation modalities for the treatment of depression, ECT remains a standard and vital treatment for our most seriously ill patients, particularly those in the geriatric age group. We would like to add data about the speed of ECT remission in geriatric depression from the ongoing National Institute of Mental Health (NIMH)-supported multicentre trial, Prolonging Remission in Depressed Elderly (PRIDE, ClinicalTrials.gov Identifier: NCT01028508).

Our group has just completed enrolment of 237 patients in phase 1 of a trial in which patients with unipolar depression over 60 years of age receive a course of ultra-brief pulse right unilateral ECT augmented with venlafaxine. (Phase 2 of the trial is random allocation to venlafaxine plus lithium or venlafaxine plus lithium plus flexible maintenance ECT. This phase of the trial will be completed in the next 3 months.) The cohort of 133 remitters in phase 1 required a mean of 7.3 (s.d. = 3.1) ECT sessions to reach remission, defined as a Hamilton Rating Scale for Depression (HRSD-24) score of $\leqslant 10$ on two consecutive occasions (personal communication, R. Knapp). Because ECT was administered three times a week in our study, seven treatments approximate 2.5 weeks until remission, a time comparable to that reported by Spaans *et al*.

In our previous study, comparing the efficacy of the three standard electrode placements in ECT,[2] the mean number of ECT sessions needed to achieve remission in patients over 60 years of age was also consistently low: bi-temporal (5.5, s.d. = 2.2, $n = 19$), bi-frontal (5.4, s.d. = 2.1, $n = 11$), right unilateral brief pulse (5.1, s.d. = 2.1, $n = 19$). Speed of response takes on added importance when patients are urgently ill and present with severe suicidal urges, agitation, psychosis, or malnutrition from profound depression. Because of its unsurpassed efficacy and now better-documented speed of response in geriatric depression, ECT should no longer be relegated to last place in treatment algorithms for severe depression.[3] Finally, it should be noted that in both Spaans *et al* and the PRIDE study, newer techniques allow practitioners to prescribe ECT in a form that is more tolerable for patients than in the past.[4]

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Authors' reply: We agree that the superior efficacy and faster onset of action of ECT compared with other treatment modalities warrants the earlier application of ECT in the treatment of elderly patients suffering from severe depression. The growing evidence of superior efficacy in the subgroup of elderly patients[1] suggests the existence of distinctive subgroups with individual, clinical, cognitive and genetic parameters predicting response or non-response, as well as the emergence of side-effects. An exploratory study on clinical and cognitive profiles that predict early and complete remission with a Clinical Global Impression of Severity of 1 within 2 weeks of treatment has been submitted for publication. Brief pulse treatment, older age, shorter duration of the current depressive episode and psychosis predicted fast remission, but also a lower executive function at baseline as measured with letter

fluency (effect size $d = 0.9$, $P = 0.071$), compared with the late remitters.

Our group has just completed the Mood Disorders in Elderly treated with Convulsive Therapy (MODECT) study, which included 110 patients with a mean age of 73 years (range 55–90 years). This study aims to identify predictors for the efficacy of ECT using neuroimaging, clinical measures (on cognition, mood and psychomotor symptoms), neuropsychological data and biological measurements. Recently, another research group in The Netherlands presented exciting data using a functional magnetic resonance imaging marker for the prediction of individual ECT outcome.[2] The MODECT data provide a wonderful opportunity to study and possibly replicate these findings in an older cohort.

With respect to the optimal treatment modality, we agree that the speed of remission using ultra-brief pulse ECT in the PRIDE study was indeed comparable to the speed of remission of the merged ultra-brief/brief pulse ECT groups.[3] However, the assessments of week 2 of the ECT group were neglected for comparison with the medication group. In the original ECT study,[4] this elderly, brief pulse subgroup achieved remission significantly faster than the elderly, ultra-brief pulse subgroup: remission was achieved in 2.2 weeks (s.d. = 0.9) *v.* 3.0 weeks (s.d. = 1.1; $t(29) = -2.249$, $P = 0.032$), respectively. This finding may denote the possibility that twice-weekly brief pulse ECT with either unilateral or bilateral electrode placement could have superior efficacy compared with ultra-brief pulse treatment.

The recent evidence shown by our research and the recent findings of the PRIDE study once more emphasise the clinical importance of ECT's rapid effect; ECT should indeed be taken into account when revising treatment algorithms for severely depressed elderly patients, hence avoiding the use of the less effective and slower-acting antidepressant medication.

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The 'unknown' safety concern for aripiprazole once monthly

Fleischhacker *et al* report that treatment-emergent adverse effects are comparable for aripiprazole 400 mg once monthly and a suboptimal dose (50 mg) of aripiprazole once monthly.[1] Also, they state that the 'clinical relevance' of statistically significant difference in Barnes Akathisia Rating Scale score with aripiprazole 400 mg once monthly against oral aripiprazole is 'unknown'. Akathisia is known to be the most clinically relevant adverse effect with oral aripiprazole because of the subjective distress caused to the patient and the increased risk of agitation and suicide associated with it. Hence, a higher rate of akathisia with aripiprazole 400 mg once monthly cannot be discounted as being of 'unknown clinical relevance'. Further, a deeper look at the apparently similar rates of 'any treatment-emergent adverse effects' for the two doses of aripiprazole reveals that the rates may not be similar if psychotic disorder and schizophrenia (which are efficacy outcomes and in no way can be considered as adverse effects for the purposes of this study) are removed from the list. The article minimises the possible safety concerns associated with aripiprazole 400 mg once monthly. A precise assessment of safety concerns (besides efficacy) is of utmost importance for a potential prescriber and there is potential of a prescriber being misguided by superficially reading this article. Further, efficacy outcomes of the study could have been contaminated by the noticeably high and differential discontinuation rates in the two active arms. The last observation carried forward (LOCF) method used for analysis of missing data tends to underestimate worsening in intention-to-treat (ITT) analyses. A comparison of results generated by ITT and per protocol analysis could have been more informative in assessing the efficacy outcomes.

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Authors' reply: Gupta & Kamboj correctly note that akathisia is a clinically relevant adverse effect with oral aripiprazole because it causes distress and is associated with an increased risk of agitation and suicide in patients with schizophrenia. We did not want to discount a higher rate of akathisia with aripiprazole 400 mg once monthly as being of 'unknown clinical relevance', but rather questioned the clinical relevance of the absolute 0.11-point group difference on the 5-point Barnes Akathisia Global Scale. We appreciate that this could have been stated more clearly. In our study,[1] 10.6% of patients treated with aripiprazole 400 mg once monthly reported akathisia as a treatment-emergent adverse event (TEAE), as did 6.8% of patients treated with oral aripiprazole and 8.4% of patients treated with a sub-therapeutic dose of aripiprazole once monthly; no patients discontinued because of akathisia. Rates of agitation, reported as a TEAE, were low among all treatment groups (aripiprazole 400 mg: 2.6%; oral aripiprazole: 0.8%; aripiprazole 50 mg: 0%). As noted in our manuscript, Clinical Global Impression Severity of Suicide (CGI-SS) scores and Columbia Suicide Severity Rating Scale (C-SSRS) suicidal ideation intensity total scores remained stable across treatment groups (see Table 4 in the published article[1]).

Gupta & Kamboj note that the rate of TEAEs with aripiprazole 400 mg once monthly may not be similar to the rate with a sub-therapeutic dose of aripiprazole once monthly if psychotic disorder and schizophrenia are removed from the list of TEAEs. They also suggested that psychotic disorder and schizophrenia are not TEAEs and are efficacy outcomes. In this context, we note that the regulatory authorities in Europe and the USA require accurate

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