Table 4 Percent of Clinicians Prescribing Other Drugs

	Psychiatrists ($n = 39$)	Neurologists ($n = 66$)	General physicians ($n = 43$)
Oxiracetam/aniracetam n (%)	22(56.4)	43(65.2)	30(69.8)
Ginkgo Biloba extract n (%)	28(71.8)	48(72.7)	34(79.1)
Ergot alkaloid n (%)	18(46.2)	38(57.6)	18(41.9)
Vitamin E n (%)**	4(10.3)	5(37.9)	223(53.5)
Nutrition supplements n (%)**	7(17.9)	40(60.6)	25(58.1)
Herbs/traditional Chinese medicine n (%)*	11(28.2)	33(50.0)	3(53.5)

Notes: *$P < 0.05$, **$P < 0.01$

and Memantine as first-line medications for treating patients with AD [10, 8]. Clinicians, today, still mainly use ChEIs to treat symptoms of patients with AD [13], and those medications have been shown to be clinically effective and safe [14]. Clinical practice guidelines published by the APA, the American College of Physicians (ACP), and the American Academy of Family Physicians (AAFP) all have noted the effectiveness and safety of using ChEIs [10, 9]. Memantine is a NMDA receptor antagonist that is approved for treating patients with moderate or severe AD [10]. Our results showed that over 94 % of clinicians in each group considered using ChEIs because of its effectiveness and safety. There were low proportions of clinicians in the three groups who chose Memantine, some of whom chose it because patients had moderate or severe AD. Therefore, the study's results are in line with the prescription recommendations given by clinical guidelines.

We should mention that there are special characteristics and circumstances in China. First, Chinese patients who follow clinicians' prescriptions mostly obtain their medications at the dispensary of the clinician's hospital, and every hospital's dispensary provides different kinds of medications. Dispensaries in tertiary hospitals have a relatively comprehensive range of medications, and they accept relatively new kinds of drugs. The dispensaries of community hospitals have the fewest kinds of drugs and provide relatively basic and inexpensive medications. The situation of second-tier hospitals is between that of the community hospitals and the tertiary hospitals. Second, Donepezil was approved by the FDA for use in public clinical practice in 1996, and it has been used in clinical practice in Shanghai since 2000. However, it was not until recently that Donepezil has been included in medicare reimbursement in Shanghai and other regions. Furthermore, Donepezil and Memantine are only available at some hospitals' dispensaries. The last characteristics is that Huperzine A, which is extracted from Huperzia serrata (a traditional Chinese medicine), is a new type of sesquiterpene alkaloid compound [5].

Huperzine A was independently developed by Chinese scientists, and it appeared on the Chinese market for treating patients with AD in 1995. Huperzine A was marketed much earlier than Donepezil and Memantine, and the price of Huperzine A is cheaper than these two drugs. If we calculate the daily dose of Huperzine A as 300 μg, the price of it is approximately 15 % of a 5 mg dose of Donepezil. Huperzine A is available in nearly every hospital in China. Because of the characteristics described above, the present study included neurologists, who were mostly from tertiary hospitals, psychiatrists, who were mainly from second-tier hospitals—a few were from tertiary hospitals (such as Shanghai Mental Health Center), and GPs, who were mainly from community hospitals (see Appendix). Thus, the results showed that most neurologists chose Donepezil and Memantine, and most psychiatrists and GPs chose Huperzine A. These findings may be related to the availability of different medications in different kinds of hospitals. The low prescription rates of Memantine may be that it was marketed in China late in 2006 and lack of availability at hospitals. In the near future, when patients in China could choose their medicine allocation, a further investigation on clinicians' prescription would be updated.

A previous study showed that the ChEIs dosage is related to its effects [15], and another study indicated that the administration of Memantine should be given in adequate doses [16]. The present study found that the medication doses of Memantine and ChEIs were both low. One reason for this may be that clinicians and patients did not have enough knowledge about AD. Li and her colleagues [17] investigated community residents in Shanghai and found that people had little understanding about the early phase of AD and the benefits of treatment. Under these circumstances, clinicians might not