31 Brodie MJ, Richens A, Yuen AW. Double-blind comparison of lamotrigine and carbamazepine in newly diagnosed epilepsy. UK Lamotrigine/Carbamazepine Monotherapy Trial Group. *Lancet* 1995;**345**:476–9.
32 Reunanen-M, Dam-M, Yuen-AW. A randomised open multicentre comparative trial of lamotrigine and carbamazepine as monotherapy in patients with newly diagnosed or recurrent epilepsy. *Epilepsy Res* 1996;**23**:149–55.
33 Brodie MJ. A multicenter double blind randomized comparison between lamotrigine and carbamazepine in elderly patients with newly diagnosed epilepsy. *Epilepsia* 1998;**39**(suppl 6):72.
34 Chadwick DW, Anhut H, Greiner MJ, *et al*. A double-blind trial of gabapentin monotherapy for newly diagnosed partial seizures. International Gabapentin Monotherapy Study Group 945–77. *Neurology* 1998;**51**:1282–8.
35 Chadwick D. Safety and efficacy of vigabatrin and carbamazepine in newly diagnosed epilepsy: a multicentre randomised double-blind study. Vigabatrin European Monotherapy Study Group. *Lancet* 1999;**354**:13–9.
36 Tanganelli P, Regesta G. Vigabatrin vs carbamazepine monotherapy in newly diagnosed focal epileptics: a randomized response conditional crossover study. *Eur J Neurol* 1996;**25**:257–62.
37 Dam M, Ekberg R, Loyning Y, *et al*. A double blind study comparing oxcarbazepine and carbamazepine in patients with newly diagnosed, previously untreated epilepsy. *Epilepsy Res* 1989;**3**:70–6.
38 Bill PA, Vigonius U, Pohlmann H, *et al*. A double-blind controlled clinical trial of oxcarbazepine versus phenytoin in adults with previously untreated epilepsy. *Epilepsy Res* 1997;**27**:195–204.
39 Guerreiro MM, Vigonius U, Pohlmann H, *et al*. A double-blind controlled clinical trial of oxcarbazepine versus phenytoin in children and adolescents with epilepsy. *Epilepsy Res* 1997;**27**:205–13.
40 Christe W, Kramer G, Vigonius U, *et al*. A double-blind controlled clinical trial: oxcarbazepine versus sodium valproate in adults with newly diagnosed epilepsy. *Epilepsy Res* 1997;**26**:451–60.
41 Marson A, Beghi E, Berg A, *et al*. The Cochrane collaboration: systematic reviews and their relevance to epilepsy. The Cochrane epilepsy network. *Epilepsia* 1996;**37**:917–21.
42 NHS R&D Health Technology Assessment Programme. An RCT of longer-term clinical outcomes and cost-effectiveness of standard and new antiepileptic drugs. March 2000. http://www.hta.nhsweb.nhs.uk/projdets/951301.htm

EDITORIAL COMMENTARIES

Building an evidence base for multiple sclerosis management: support for physiotherapy

The recent debate in the United Kingdom over whether or not β-interferon and glatiramer acetate should be prescribed on the National Health Service for people with multiple sclerosis has focused the attention of the media, health services, and the business community in a way never previously experienced. However, the use of drugs which have a partial effect on disease activity is just one component of the active management of this complex disease. Multiple sclerosis has wide ranging physical and psychosocial consequences, which may have an enormous long term impact on almost every aspect of the daily lives of people with the disease and their families. In providing an adequate service it is therefore crucial to focus not only on the role of immunomodulatory drugs, but also on the many rehabilitation strategies which aim to improve the quality of life of people with multiple sclerosis. Drug therapy and rehabilitation strategies should be viewed as partners rather than competitors in the allocation of resources. Evidence based medicine requires resources to be allocated to interventions of proved effectiveness. It is therefore timely that the paper by Wiles *et al* in this issue (pp 174–179)[1] provides evidence of the effectiveness of a very commonly used rehabilitation intervention, physiotherapy.

Given that physiotherapy is so commonly used in multiple sclerosis, it is perhaps difficult to understand why such a paucity of scientific evidence exists to either support or refute its effectiveness. In part, this is because studies of this type are difficult to plan and to implement. This controlled randomised cross over study by Wiles *et al*[1] shows that rigorous methodology is possible. Of importance, it provides evidence to support the widely held belief (by both clinicians and patients) that specialist neurological physiotherapy helps to improve mobility in people with multiple sclerosis. The next step is to understand the mechanism by which these strategies work.

Physiotherapy is just one component within the comprehensive model of care designed to improve the quality of life of people with multiple sclerosis. It is encouraging that in the past few years two randomised controlled studies have been published to demonstrate the positive impact that multidisciplinary packages of care can have on the daily life of the person with multiple sclerosis.[2 3] While recognising that scientifically credible studies remain few in number, it is hoped that this gradual accumulation of evidence will help to reduce the negative preconceptions, which have tended to persist about the effectiveness and validity of rehabilitation in multiple sclerosis; and will positively influence the allocation of funds to these areas.

A review of the allocation of resources for the management of multiple sclerosis is clearly needed. A recent study investigating the level of community services in the United Kingdom showed that the provision of services seemed to be simply a matter of chance, providing support for the often expressed dissatisfaction by people with multiple sclerosis about the services they receive.[4] It is hoped that national guidelines and standards of care will help to improve this situation. Currently guidelines for the management of multiple sclerosis are being drafted by the National Institute for Clinical Excellence. Their development and the future allocation of resources will depend heavily on the available evidence base. Further rigorous evaluation of rehabilitation interventions such as physiotherapy is therefore clearly necessary. In undertaking such evaluation there is a need to broaden the research methodologies used, to tap the experience and views of people with multiple sclerosis, their families, and clinicians who work within this field. The "New NHS" claims to positively promote user involvement in the development of health services. This is a golden opportunity for this principle to be put into action; to provide the much needed impetus to improve the

provision of services to people with multiple sclerosis. We await to see whether this is an opportunity seized…or one that is lost.

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1 Wiles CM, Newcombe RG, Fuller KJ, *et al*. Controlled randomised crossover trial of the effects of physiotherapy on mobility in chronic multiple sclerosis. *J Neurol Neurosurg Psychiatry* 2001;**70**:174-9.
2 Freeman JA, Langdon DW, Hobart JC, *et al*. The impact of inpatient rehabilitation on progressive multiple sclerosis. *Ann Neurol* 1997;**42**:236–44.
3 Solari A, Filippini G, Gasco P, *et al*. Physical rehabilitation has a positive effect on disability in multiple sclerosis patients. *Neurology* 1999;**52**:57–62.
4 Freeman JA, Thompson AJ. Community services in multiple sclerosis: still a matter of chance. *J Neurol Neurosurg Psychiatry* 2000;**69**:728–32.

Comparative neuropsychology of Lewy body and Alzheimer's dementia

The occurrence of Lewy bodies has a prevalence rate of 2%–9% in elderly people[1] and dementia with Lewy bodies (DLB) accounts for 12%–27% of cases previously diagnosed as dementia of the Alzheimer type (DAT).[2 3] The core features of DLB are fluctuating cognition with pronounced variation in attention and alertness, recurrent visual hallucinations, and spontaneous parkinsonian signs; probable DLB requires two of these features. There is considerable overlap between DLB and DAT,[4] but there have been only a few comparative neuropsychological studies. Various neuropsychological issues were addressed in the papers by Lambon Ralph *et al*[5] (this issue, pp 149–156) and Calderon *et al*[6] (this issue, pp 157–164) who disclosed some valuable insights that merit closer inspection. Clinicians and researchers will also find a useful tabulation of recent findings in the paper by Lambon Ralph *et al*[5].

Previous studies have suggested that visuoperceptual problems are salient in DLB, but this evidence came from measures that represent a complex of abilities. The papers here report that basic figure-ground discrimination was worse in one DLB sample, whereas the other DLB sample instead had problems identifying silhouettes of real versus non-real objects. More complex visual tasks produced similar deficits in both DLB and DAT groups. Perhaps the most interesting finding was that the DLB groups in both studies showed marked impairments when identifying fragmented letters. This task has minimal cognitive load, and was unaltered in the DAT samples, so it may be especially promising for differential diagnosis and treatment evaluations.

Attention may be a second area of weakness in DLB[3] which, together with the related areas of working memory and executive function, influences adaptive functioning and performance on formal tests. Calderon *et al*[6] have confirmed that patients with DLB show widespread difficulties in this domain. Whereas patients with DAT showed set shifting, letter fluency, and selective attention deficits, the DLB group had additional problems in sustained and divided attention tasks.

The third contribution made by these two papers concerns long term episodic memory and semantic memory, two major hallmarks of DAT. One important finding is that delayed recall represents one of the apparently few areas in which patients with DAT have a disproportionately greater weakness than their DLB counterparts, even though the patients with DLB do show substantial deficits on recall and recognition tasks. Category fluency and picture naming were also substantially but equally impaired in both dementias, so semantic memory itself does not distinguish these two disorders. The more marked visuoperceptual problems in patients with DLB seem, however, to exacerbate their semantic memory performance in some tests when presentation uses the visual modality.

Calderon *et al*[6] also make the interesting point that visual hallucinations in DLB may be related to the combination of impaired visuoperception and fluctuating attention. Cholinergic deficits are more profound in DLB and this too may be associated with both attentional difficulties and hallucinations. These ideas, and the various lines of evidence presented, will undoubtedly guide future research on the behavioural and neurobiological sequelae of the DLB syndrome.

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1 Perry RH, Irving D, Tomlinson BE. Lewy body prevalence in the aging brain: relationship to neuropsychiatric disorders, Alzheimer-type pathology and catecholaminergic nuclei. *J Neurol Sci* 1990;**100**:223–33.
2 Lennox G, Lowe J, Landon M, *et al*. Diffuse Lewy body disease: correlative neuropathology using anti-ubiquitin immunocytochemistry. *J Neurol Neurosurg Psychiatry* 1989;**52**:1236–47.
3 McKeith IG, Galasko D, Kosaka K, *et al*. Consensus guidelines for he clinical and pathologic diagnosis of dementia with Lewy bodies (DLB). Report of the consortium on DLB international workshop. *Neurology* 1996;**47**: 1113–24.
4 Londos E, Passant U, Brun A, *et al*. Clinical Lewy body dementia and the impact of vascular components. *Int J Geriatr Psychiatry* 2000;15:40–9.
5 Lambon Ralph MA, Powell J, Howard D, *et al*. Semantic memory is impaired in both dementia with Lewy bodies and dementia of Alzheimer's type: a comparative neuropsychological study and literature review. *J Neurol Neurosurg Psychiatry* 2001;**70**:149–56.
6 Calderon J, Perry RJ, Erzinclioglu SW, *et al*. Perception, attention, and working memory are disproportionately impaired in dementia with Lewy bodies compared with Alzheimer's disease. *J Neurol Neurosurg Psychiatry* 2001;**70**:157–64.