

replies and the questions were: (1) What single thing do you think would improve the management of stroke/transient ischaemic attack patients in your practice? (2) Please write down the five things in the diagnosis and management of stroke or transient aschaemic attack which you find the most difficult or which give you the greatest concern.

Although Oxford had mounted a special, community-based initiative in stroke diagnosis<sup>3</sup> and Nottingham had raised some £200 000 by public appeal for stroke research, the proportion of questionnaires returned was low — 46 in Oxford (23.0%) and 73 in Nottingham (24.3%).

Table 1 shows that the major perceived need in both cities was for access to home physiotherapy. Next were improvements in home nursing and in social service provision. Medical doubts then began to take precedence and the respondents asked for

**Table 1.** The single factor that general practitioners felt would improve their management of stroke/transient ischaemic attack.

	Percentage of doctors	
	Nottingham (n = 73)	Oxford (n = 46)
<i>Non-medical</i>		
Domiciliary physiotherapy	46.6	39.1
Better home nursing provision	11.0	13.0
Better social service provision	11.0	10.9
Domiciliary occupational therapy	5.5	4.3
Access to hospital physiotherapy	4.1	2.2
Family counselling	2.7	0.0
Access to day centre	1.4	8.7
<i>Medical</i>		
Advice on place of care and on investigating type and cause of stroke	8.2	4.3
Clearer advice on prevention	8.2	4.3

n = number of respondents.

clearer guidance on who should be investigated for stroke/transient ischaemic attack and how. Anxiety about excluding tumours and differentiating between cerebral haemorrhage and infarction clearly emerged from the replies in respect of acute stroke, while in the post-stroke period the requirements were for clearer guidance on stroke prevention.

When the doctors listed five problem areas domiciliary physiotherapy again dominated the non-medical area while the medical topics listed again highlighted

uncertainties on the need for acute investigation, on the appropriate place of care and on the post-stroke preventive measures which should be offered.

The general practitioners in both cities saw domiciliary physiotherapy as their main need. This raises two important issues. First, it is not known whether physiotherapy in general, or any particular regimen hastens functional recovery from stroke or merely provides an invaluable boost to the morale of patients, relatives, doctors and therapists while the disease pursues its own natural history.<sup>4</sup> Before providing home physiotherapy we should insist that such provision is conditional on its incorporation into adequately-designed trials. Secondly, we must scrutinize the dispersion versus centralization of scarce resources. It is argued that it is unhelpful to subject stroke patients to long ambulance journeys for brief spells of treatment. Domiciliary treatment could obviate this but the therapists would then have to spend time driving from patient to patient, delivering treatment under less than ideal conditions. The health departments should commission studies in which home- and hospital-based treatments can be compared with each other and with less demanding regimens that can be delivered by suitably-trained relatives or volunteers.

The respondents were clearly uncertain about the need to reach an early and accurate diagnosis in patients with stroke. Until we have resolved whether computerized tomography scanning in stroke is a research tool or an important routine procedure we cannot provide clear guidance for general practitioners. Similarly, the requirement for clearer guidance on stroke prevention in the post-stroke period reflects the lack of a consensus in the profession as a whole and of a substantial-enough body of trial-based evidence from which we can devise rational plans for stroke care.<sup>5</sup>

This study shows that there is a pressing need to respond to the perceived needs of general practitioners, not just by providing the extra services which they request but by building such provision into outcome-based studies so that we can measure the contribution of these services to an improvement in patient care.

J.R.A. MITCHELL

University Hospital  
Queen's Medical Centre  
Nottingham NG7 2UH

W.J. JEFFCOATE

City Hospital  
Nottingham

C.P. WARLOW

Department of Medical Neurology  
Edinburgh University

## References

- Harris AI. *Handicapped and impaired in Great Britain*. London: HMSO, 1971.
- Acheson J, Acheson HWK, Tellwright JM. The incidence and pattern of cerebro-vascular disease in general practice. *J R Coll Gen Pract* 1968; **16**: 428-436.
- Oxfordshire Community Stroke Project. Incidence of stroke in Oxfordshire; first year's experience of a community stroke register. *Br Med J* 1983; **287**: 713-717.
- Langton-Hewer R. Stroke rehabilitation. In: Ross-Russell RW (ed). *Vascular disease of the nervous system*. Edinburgh: Churchill Livingstone, 1983.
- Harrison MJG, Ross-Russell RW. Medical treatment. In: Harrison MJG, Dyken ML (eds). *Cerebral vascular disease*. London: Butterworths, 1983.

## Multiple sclerosis and sinusitis

Sir,

A research project in general practice showed an association between multiple sclerosis and sinusitis.<sup>1</sup> More and more evidence is accumulating to support a hypothesis that in multiple sclerosis the central nervous system is subjected to 'showers' of endotoxins from anaerobic commensal bacteria which grow in diseased mucosal tissue of the sphenoid and ethmoid sinuses. These endotoxins pass into the cerebrospinal fluid through bony defects which are frequently present in the sphenoid. From the cerebrospinal fluid these 'noxious substances' reach the tissues of the brain and cord via the Virchow-Robin spaces and demyelinating lesions arise.

A great barrier to discovering the cause of multiple sclerosis has been the lack of post-mortem material. When a patient with multiple sclerosis dies the general practitioner or consultant rarely asks for a post-mortem because they know the cause of death. We wonder if general practitioners could help our research by obtaining permission for us to examine the brain and cranial cavity of any of their patients who die with a diagnosis of multiple sclerosis. A complete autopsy would not be requested. We would be prepared to attend anywhere at any time.

GEORGE DICK

Waterland  
Rowhook  
Horsham  
West Sussex RH12 3PX

DEREK GAY

Green Storthe  
Coast Road  
West Mersea, Colchester  
Essex CO5 8LS

## Reference

- Gay D, Dick G, Upton G. Multiple sclerosis associated with sinusitis: a case controlled study in general practice. *Lancet* 1986; **1**: 815-819.