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Research and development in stroke services

Is taking off in the United Kingdom

Stroke affects people of the same age and in the same numbers as coronary heart disease¹; thrombolytic therapy is highly effective for selected patients in the first three hours²; and both treatment in stroke units³ and immediate brain imaging⁴ are cost effective. Yet patients and the public have low expectations of outcomes after stroke.

Moreover, as the National Audit Office (NAO) reports, stroke is not afforded the same priority by the NHS as other serious diseases.⁵ The NAO argues that the NHS lacks sufficient emergency responses to stroke and effective acute care, provides too few services for rehabilitation and support after discharge from hospital for both patients and carers, and does too little to prevent stroke. The last important lever for improving services for stroke was the national service framework for older people (2001),⁶ which did seed services in most NHS hospitals, but there is still much to do.

This week the UK government's Public Accounts Committee will hear the findings of the NAO report on stroke and the government's response to it. Along with other recent developments, this could provide a real opportunity to improve services for patients with stroke.

One essential development is to foster a culture of research on stroke. The UK Stroke Research Network (www.uksrn.ac.uk) is starting to provide an infrastructure for research on this disease, supported by £20m over five years from the Department of Health. By establishing local research groups in England, the network will facilitate clinical research in prevention, primary care, acute care, and rehabilitation for stroke. It will also perform a detailed baseline analysis of the current NHS infrastructure for research in stroke and will identify local barriers to such studies.

General practitioners now maintain registers of patients with stroke and follow up these patients regularly, offering new opportunities for studies in primary care. And, despite short term research contracts and few formal research posts, the number of academics working in stroke rehabilitation is increasing.

Patients, carers, and the public have so far participated in only a limited way in developing services for and research on stroke in the UK.⁷ The public needs to know more about stroke. The Stroke Association's recently launched campaign, "Stroke is a Medical Emergency," is raising public awareness of

the warning signs of stroke.⁸ Almost all patients with stroke are treated in the NHS, where acute services are increasingly well integrated with rehabilitation units.

The capacity of services for stroke remains a barrier to both high quality care and research. Many NHS acute stroke units are keen to introduce thrombolysis and to participate in randomised controlled trials, despite difficulties in assessing patients and using imaging urgently. Although the proportion of patients treated on a stroke unit has increased (from 36% in 2001 to 47% in 2004), only 41% of patients in 2004 spent more than half of their time as inpatients in such units.⁹ Rapid access to investigations within the NHS, particularly brain imaging, is another challenge. Fewer than 20% of stroke units have access to computed tomography within three hours of admission, and most patients wait more than two days.⁹ There is a national shortage of the allied health professionals required to staff multidisciplinary teams for stroke, and few such staff actively participate in research because there is no career framework for them in research.

Complicated regulation of research has hampered clinical research on stroke.¹⁰ The recently launched research and development strategy for the NHS, *Best Research for Best Health*,¹¹ should strengthen and streamline systems for managing and governing research, however, and should reduce substantially the burden and delays that clinical researchers face.

Stroke care costs the NHS £2.8bn a year in direct care costs (more than the direct costs of coronary heart disease) and costs the nation £1.8bn in lost productivity and disability.¹ Patients, carers, professionals, and researchers must evaluate critically any actions in response to the NAO report. This is a time of real opportunity to spend this money more effectively.

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