



### Stroke in the community

The South African National Burden of Disease Study found that stroke for the year 2000 was the third most common cause of death in South Africa (6.5% of all deaths) after HIV/AIDS and ischaemic heart disease. It represents the dominant type of vascular disease in sub-Saharan Africa.

To develop a community-based model of stroke care, Wasserman, de Villiers and Bryer conducted a multi-centre longitudinal cohort study of stroke patients at Ingwavuma in northern KwaZulu-Natal in urban, semi-rural and rural sites.<sup>1</sup> Their high 3-month mortality is similar to the all-stroke case fatality (from hospital-based studies in developing countries) of about 30% at 3 months. Hypertension was by far the most important and prevalent risk factor for stroke, which is consistent with others who have identified hypertension as the most powerful predictor for stroke in sub-Saharan Africa. Most of their patients had severe disabilities that, at the time of discharge, required assistance with daily living activities from another person. Despite their high death and severe death and debility rate at 3 months, most survivors had significant functional improvement.

In his accompanying editorial,<sup>2</sup> Bryer notes that there are more stroke deaths in older groups than in younger groups. Stroke is largely preventable by reducing vascular risk factors. The risk of recurrent stroke is highest soon after the first ever stroke. And in the post-acute phase of stroke, management efforts are directed at early rehabilitation and secondary prevention.

Because of the common occurrence and serious nature of strokes and absence of skills to manage them in rural areas, the authors suggest specific training of existing home-based carers to do so.

### Neurocysticercosis and epilepsy

Cysticercosis is a parasitic disease caused by *Taenia solium*. Both people and pigs can become infected with the larvae or cysts of the parasite by faecal-oral contamination. Cysts are often located in the central nervous system (CNS), causing neurocysticercosis (NCC). Gilberto Ocana and colleagues<sup>3</sup> investigated the prevalence of NCC in patients treated for epilepsy in Lusiskisiki, Eastern Cape.

NCC may present with a variety of clinical manifestations. The parenchymal form is most common and accounts for 29 - 62% of cases of NCC, causing headache, seizures, focal neurological deficit or intellectual impairment. Seventy-five per cent of patients with NCC have calcified cyst in the muscles. Treatment of NCC includes antiparasitic drugs, praziquantel and albendazole.

In their study group, 61% of patients with epilepsy (2 or more seizures) were found to have NCC. This high prevalence rate may be due to unsanitary environmental conditions. The authors recommend that all patients with seizures of recent onset should have a CT or MRI brain scan – also if a patient has a positive serological result to exclude NCC.

### Swine flu

The swine flu epidemic has reached our shores, and in his editorial<sup>4</sup> Barry Schoub brings us up to date on the background of this virus. The current outbreak of pandemic influenza (H1N1) 2009 demonstrates again how enigmatic, unpredictable and challenging the virus is. First isolated in 1933, it was one of the first human viruses to be isolated and has been studied intensively. However, it is unpredictable and has a penchant for upsetting prevailing dogmas.

As the virus frequently infects pigs, humans and birds it is not surprising that a novel swine influenza virus arose as a result of exchange of genetic material. Its spread has been non-seasonal and rapid, it affects mainly children and young adults, a higher percentage of patients require hospitalisation, it has a longer incubation period, and it has additional unusual clinical gastro-intestinal symptoms of diarrhoea and vomiting.

### Thoracic surgical research in decline

Linegar and colleagues<sup>5</sup> investigated the scope and trends in clinical research in South African thoracic surgery over 50 years (between 1955 and 2006) and measured its impact on clinical practice.

They found that the peak productivity occurred between 1980 and 1989, with a total of 99 publications (9.9 publications per year). University publications decreased markedly after the 1980's with a shift to the private sector. The private sector provided 14% of the national output after 2000, placing it third in the rankings of publications after the University of Cape Town (31) and the University of KwaZulu-Natal (11) since 1955. Clinical observations in thoracic surgery comprised 77% of all publications.

The study indicates the vulnerability of a small specialty in a developing country and the need to rekindle the interest and culture of research.

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2. Bryer A. The need for a community-based model for stroke care in South Africa. *S Afr Med J* 2009; 99: 574-575.
3. Ocana G, Sablon JCO, Tamayo IO, Arena LA, Ocana LMS, Govender S. Neurocysticercosis in patients presenting with epilepsy at St Elizabeth's Hospital, Lusiskisiki. *S Afr Med J* 2009; 99: 588-591.
4. Schoub BD. Pandemic influenza (H1N1) 2009 (swine flu). *S Afr Med J* 2009; 99: 576-577.
5. Linegar A, Smit F, Goldstraw P, van Zyl G. Fifty years of thoracic surgical research in South Africa. *S Afr Med J* 2009; 99: 592-595.