Stroke and atrial fibrillation

To the Editor: I write in response to two consecutive papers published in the *SAMJ*.[1,2] The striking feature in both was complete lack of reference to the presence or absence of atrial fibrillation.

More than 30% of strokes relate to atrial fibrillation, depending on the report referred to. Although not directly applicable to the article by Walker *et al*.,[1] it would have been reasonable for them to mention the presence or absence of atrial fibrillation in the same way as levels of blood pressure are reported.

In the paper by de Villiers *et al*.,[2] surely recurrent stroke is a major determinant of outcome following stroke? In the uncoagulated patient with atrial fibrillation the risk of recurrent stroke is extremely high. The implications of this are self-evident.

Traditionally, in sub-Saharan Africa a large emphasis has been placed on the danger of uncontrolled or poorly controlled hypertension. In the same light, the presence or absence of atrial fibrillation (particularly in the presence of valvular disease or heart failure) needs to be recognised, since the correct treatment for this is oral anticoagulant therapy with vitamin K antagonists. Documentation of the incidence of atrial fibrillation in paroxysmal or permanent atrial fibrillation is therefore essential in the setting of stroke and its long term outcome.[3-5]

By 'spreading the word', there is little doubt that great improvement in terms of prevention of either first or second episodes of stroke in relation to atrial fibrillation can be achieved.

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1. Walker RW, Jusabani A, Aris E, Gray WK, Mitra D, Swai M. A prospective study of stroke sub-type from within an incident population in Tanzania. S Afr Med J 2011;101(5):338-344.
2. De Villiers L, Badri M, Ferreira M, Bryer A. Stroke outcomes in a socio-economically disadvantaged urban community. S Afr Med J 2011;101(5):345-348.
3. Foster V, Ryden LE. ESC guidelines for management of patients with atrial fibrillation. J Am Coll Cardiol 2006;48:854-906.
4. Lip GY, Edwards SJ. Stroke prevention with aspirin, warfarin and ximelagatran in patients with non-valvular atrial fibrillation. Thromb Res 2006;118:321-333.
5. Lloyd-Jones D, Adams R, Carnethon N, et al. Heart disease and stroke statistics 2009 update. A report from AHA statistics subcommittee. Circulation 2009;119:e21-e181.

Dr De Villiers replies: In our study atrial fibrillation as a cause of stroke was not specifically mentioned, as the aetiology of stroke was not the focus of the paper. Of the 196 patients 11.2% (*N*=22) had cardio-embolic stroke, of whom 54.5% (*N*=12) were in atrial fibrillation. The outcomes for the patients with cardio-embolic stroke were worse than those for the whole cohort, with a 50% mortality at 6 months and 45.4% of survivors having severe disability (modified Rankin scores of 4 or 5) at 6 months in those with cardio-embolic stroke compared with a 6-month post-discharge mortality of 23% and 22% severe residual disability for the cohort as a whole. The point that patients with atrial fibrillation have a high risk of stroke recurrence is important, and what is particularly concerning in this study is that only 9% (*N*=2) of patients were on anticoagulation at follow-up.

Professor Walker replies: We thank Dr Obel for his response to our article. Atrial fibrillation is part of the scoring system for the Allen scoring system. We did not report the number of cases fulfilling each of the criteria laid out in the Siriraj or Allen scoring systems, because our intention was to focus on the key messages of the article. However, we have reported how many cases in the Hai (4 of 93 who had ECGs) and Dar-es-Salaam (3 of 39 who had ECGs) demographic surveillance sites had atrial fibrillation in an earlier publication from our study.[1]

We acknowledge the importance of identifying and managing patients with atrial fibrillation in the prevention of stroke, though we also recognise that the lack, and expense, of monitoring facilities may mean that many people cannot receive oral anticoagulants in sub-Saharan Africa (SSA). We are currently engaged in a study of atrial fibrillation in a community in SSA and hope to be able to present our findings in the near future.

1. Walker R, Whiting D, Unwin N, et al. Stroke incidence in rural and urban Tanzania: a prospective, community-based study. Lancet Neurol 2010;9:786-792.

Changes to parental consent procedures in South Africa – implications for school-based adolescent sexual health research

To the Editor: How can a researcher protect the rights of adolescents who want to take part in school-based sexual health research, ensuring that informed consent to participate is properly obtained, without hindering the potentially beneficial research itself? In South Africa, the National Health Act 2003 (the Act)[1] Sections 71(2) and 71(3), when enacted, may inadvertently compromise the rights of adolescents to benefit from preventive school-based health research, rather than protect them from research-related exploitation.

The proposed changes to the Act will require active consent from a legal guardian for all research conducted with subjects under the age of 18 for so-called 'therapeutic research', and both parental consent and ministerial consent for 'non-therapeutic research'. No other caregiver or custodian will be able to give consent for a child's participation in research. While current guidelines such as the Department of Health's 'Ethics in Health Research'[2] state that adolescents defined as 'persons who have reached puberty' are able to consent unassisted to research so long as it poses minimal risk and is unlikely to be objectionable to parents and community members, the National Health Act provides no such leeway.[2]

We feel that the proposed new guidelines are inappropriate for the South African social context. The Act has the potential to prevent children without a legal guardian from accessing research that could potentially benefit them. This is especially problematic, given that those without parents or legal guardians are more vulnerable to early sexual debut and contracting HIV.[3] The Act may also compromise an adolescent's right to dignity and privacy.[4] Confidentiality is paramount in research that explores sensitive topics such as sexuality. In South Africa, discussions surrounding HIV/AIDS and sex are often shrouded in stigma, and parent-child communication about these issues is invariably difficult.[5] An adolescent who is required to confront a parent or guardian about participation in a sexual health research study may be vulnerable to violence or reproach.

Students should be allowed to participate in school-based sexual health research that recognises and seeks to understand adolescents' unique needs and that develops programmes to promote their well-being, even if their parents would choose to deny them access on moralistic grounds. In line with other countries, current South African ethics guidance requires that any research content is examined and approved by relevant research ethics committees before it reaches the students. Furthermore, empirical evidence has shown that 14-year-olds may be just as competent as adults in their ability to provide informed consent in terms of 'stringent legal standards of competency'.[6]

We suggest that other methods be considered as options for consent to participate in school-based adolescent sexual and reproductive