

Address risk factors as part of clinical practice to prevent stroke

Eluzai Abe Hakim, FRCP Edin, FRCP

Associate Editor,
South Sudan Medical Journal,
Consultant Physician in Stroke and
Rehabilitation Medicine
The stroke Unit, University Hospitals
Dorset, The Royal Bournemouth
Hospital, Castle Lane East,
Bournemouth BH7 7DW

Correspondence:
eluzaihakim@doctors.org.uk

Submitted: January 2024
Accepted: January 2024
Published: February 2024

Citation: Hakim. Address risk factors as part of clinical practice to prevent stroke, South Sudan Medical Journal 2024;17(1):4-5 © 2024 The Author (s) **License:** This is an open access article under [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) DOI: <https://dx.doi.org/10.4314/ssmj.v17i1.1>

Part of this issue of the journal is dedicated to important aspects of prevention, diagnosis and management of stroke in low- and middle-income countries (LMICs).

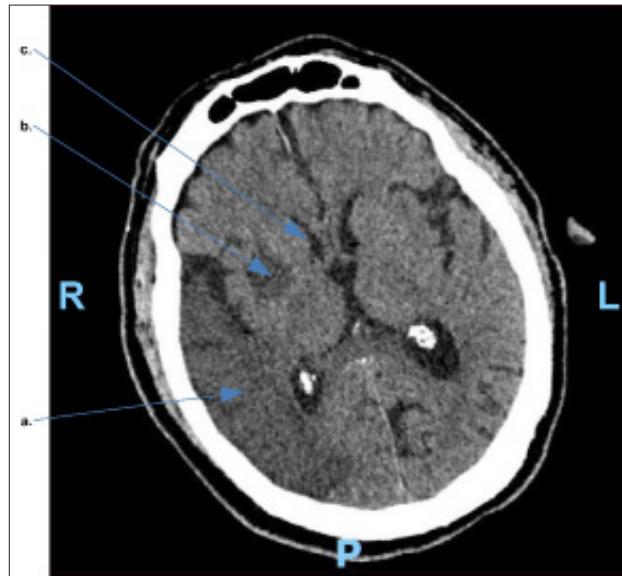
In the South Sudan there are no guidelines on the prevention and management of stroke. Most African countries lie among the LMIC where 87% of disability adjusted life years are lost from stroke^[1] and 86% of stroke related deaths occur.^[2] Although stroke mortality is high in Africa there is a paucity of information on stroke subtypes and outcomes^[3] to inform appropriate intervention. In addition, there is scarcity of Stroke Units on the continent where effective management and delivery of newer interventions such as thrombolysis in ischaemic stroke and thrombectomy may be delivered or organised. Hence, defining what has been shown to be effective in stroke care, such as prevention by addressing risk factors, good outcomes when stroke patients are managed in a dedicated Stroke Unit^[4] and prompt rehabilitation will undoubtedly help inform policy decisions in the development of stroke services in Africa.

The working age (16-64 years) population in sub-Saharan Africa is estimated to increase by 700 million between 2020 and 2050.^[5] In LMIC countries the population is predominantly young and, as such, stroke in young adults will have considerable socioeconomic impact because of healthcare costs and loss of labour productivity.^[6]

The papers on stroke published here present a clear insight into the management of stroke from acute onset in a dedicated stroke unit to rehabilitation.

It is recommended that LMIC, especially in sub-Saharan Africa, institute a policy of regularly screening for vascular risk factors such as hypertension, ischaemic heart disease, dysrhythmias, and serum cholesterol. In addition, random blood sugar must be estimated in those who are overweight or with a family history of diabetes mellitus. Modifiable lifestyle risk factors such as smoking, excessive alcohol consumption and use of recreational drugs (e.g. cannabis and cocaine) should be considered at consultations and the public advised against their use through radio, newspapers, or other means to reduce the burden of stroke.

LMIC need to develop guidelines on the management of stroke, integrate preventive measures into standard clinical practice and train physicians, nurses, physiotherapists, occupational therapists, and speech and language therapists to form multidisciplinary specialist teams dedicated to stroke care. In addition, facilities for Computerised Axial Tomographic (CT) are urgently needed. These would allow more precise diagnoses hence enabling more appropriate treatment-see figure.



Brain CAT scan of a stroke patient showing acute right non-haemorrhagic infarct in posterior middle cerebral artery territory as well as right basal ganglia with mass effect. a. Acute ischaemic infarct in posterior middle cerebral artery territory, b. Acute right basal ganglia ischaemic infarct, c. Compressed right lateral ventricle (Mass effect) (Credit: Eluzai Hakim)

References

1. Johnson SC, Mendis S, Mathers CD. Global variation in stroke burden and mortality: estimates from monitoring, surveillance and modelling. *Lancet Neurology* 2009;8:345-354
2. Feigin VL. Stroke epidemiology in the developing world. *Lancet* 2005;365:2160-2161
3. Adoukonou T, Agebetou M, Somanou A et al. Stroke Care and outcomes in the Department of Neurology in Parakou, Benin: Retrospective cohort study. *Ann Med Surg* 202;57:148-152
4. Urimubenshi G, Cadilhac DA, Kagwiza J, Wu O, Langhorne P. Stroke Care in Africa: A systematic review of the literature. *Int J. Stroke* 2018;13:797-805
5. Lam D, El Sayed A. Chapter: Labour markets in low-income countries: Introduction and demographic background. Pages 1-14,
6. Maaijwee NA, Rutten-Jacobs LC, Arntz RM et al. Long-term increased risk of unemployment after young stroke: A long term follow up study. *Neurology* 2014;83:1132-38