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EDITORIAL

Disparities in Secondary Stroke Prevention: Bangladesh Perspective

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Stroke is the third leading cause of death in Bangladesh, with a national prevalence of approximately 11.39 per 1,000 people, posing a huge economic and healthcare burden on the country.[1] It is a major public health issue that causes high prevalence of long-term health impairment and loss of productivity. Geographical disparities, cultural practices, limited patient awareness, and institutional limitations in healthcare infrastructure are the main causes of disparities in secondary stroke prevention in Bangladesh. Acute stroke survival rates have increased nationwide, but preventing a recurrent event which makes up almost one-third of hospitalized stroke cases in Bangladesh remains extremely in bad shape[2].

Although risk factors are well established, peoples rarely understands their (risk factor) precise relationship to a recurrent stroke[2]. Major modifiable risk factors like hypertension (78%), smoking (72%), diabetes (56%), and dyslipidemia are systematically undertreated due to socioeconomic and institutional barriers.[3] Vulnerable groups are at a high risk of recurrent strokes due to significant differences in secondary stroke prevention in Bangladesh, which are mainly caused by severe infrastructural limitations, medication non-adherence, economic inequality, and deep urban-rural gaps.[4] While acute stroke therapy concentrates on immediate survival, secondary prevention uses medication management, lifestyle modifications, and ongoing risk-factor control to prevent a second occurrence. However, nationwide access to these life-saving procedures is hindered by systemic issues.[2,5]

Urban tertiary care facilities are heavily concentrated in advanced facilities such as CT, MRI, and CT perfusion imaging. This equipment is entirely absent from secondary and rural healthcare facilities. Determining whether a stroke was hemorrhagic or ischemic, which is essential for determining the appropriate secondary prevention medication strategy, is either delayed or impossible without precise imaging.[6] The majority of neurologists in Bangladesh work in big cities like Chattogram and Dhaka. Rarely do rural patients who are released from urban hospitals have access to stroke clinics or local specialists for organized follow-up care.[7] Bangladesh significantly lacks automated post-discharge monitoring mechanisms, in contrast to westernized medical frameworks. Local, rural primary heath care physicians and doctors of urban tertiary hospitals don't really coordinate.[7]

Personal expenditures play a major role in Bangladesh's healthcare system. Long-term drugs like antiplatelets, high-intensity statins, and antihypertensives are too expensive majority people.[8] High rates of drug non-compliance are caused by financial limitations. Once their initial symptoms resolve, patients often cut back on dosages or stop taking their secondary preventative medications completely, mistaking a short-term recovery for a long-term recovery.[4] According to local research, more than 54% of stroke victims and caregivers think that continuing medication will "cure" the condition forever. They are frequently completely ignorant of the need for long-term risk-factor modification[9]. During discharge counseling, cultural practices including chewing betel nut, using smokeless tobacco, and consuming a diet rich in sodium are not adequately addressed[9],[10].

Disparities in secondary stroke prevention in Bangladesh are driven by systemic gaps in healthcare infrastructure, geographic inequities, cultural behaviors, and low patient awareness [2,10]. To address high out-of-pocket expenses and significant resource gaps, structural policies to subsidize secondary preventive medications, decentralization of rehabilitation through primary healthcare networks, and caregiver training at discharge are necessary.

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These issues if given proper attention, an equitable framework may be ensured for stroke survivors in Bangladesh.

Keywords: Disparities in Secondary Stroke Prevention, Stroke Prevention

References

1. Sadat A, Podder V, Biswas R. , Stroke Strikes in Bangladesh: Current Insights and Future Directions. Cureus ,2023;15(4): e37882. doi:10.7759/cureus.37882
2. Ahmed, F. ., Hoda, . M. D. ., Rashid, M. A. ., Badiuzzaman, M., Hossain, A. ., Refatul Islam, M. ., & Hossain, M. E. . (2022). Risk Factor Stratification in Patient with Recurrent Stroke in Bangladesh. Journal of Chittagong Medical College Teachers' Association, 33(1), 93-96. https://doi.org/10.3329/jcmcta.v33i1.67233
3. Aziz M, Bipasha N, Gupta U, Ramnarine IVP, Redgrave J, Ali AN, Majid A, Bell SM. Stroke in Bangladesh: A Narrative Review of Epidemiology, Risk Factors and Acute Stroke Services. J Cardiovasc Dev Dis. 2025 Feb 5;12(2):58. doi: 10.3390/jcdd12020058. PMID: 39997493; PMCID: PMC11856431.
4. Teja PS, Poli N, Sampath Kumar NS. Lifestyle and clinical risk factors influencing outcomes after recurrent stroke in a tertiary care centre. " Eur J Cardiovasc Med. 2025;15(12):6-11.
5. Njohjam MN, Falonne NT, Ngoule MO. Barriers to medication adherence for secondary stroke prevention in rural communities in Cameroon: a qualitative study. BMC Prim Care. 2025 Apr 24;26(1):125. doi: 10.1186/s12875-025-02842-w. PMID: 40275144; PMCID: PMC12023389.
6. Hussain, M. E., Rashid, M. H., Al Mamun, K. A., Abdullah Al Jobair, M., & Alam, M. S. (2025). Stroke Burden in Bangladesh and Imaging Practices: A Comprehensive Review. East West Medical College Journal, 13(2), 69-75.
7. Al AlShaikh S, University of Glasgow. Adherence to medications for the secondary prevention of stroke [dissertation]. 2016.
8. Afrin M, Huq KATME, Khan SU, Das SC, Chowdhury MSJH, Fukuoka Y, Fukushima Y, Moriyama M Effectiveness of a Health Education Program to Reduce Recurrence of Stroke by Controlling Modifiable Risk Factors in a Specialized Hospital in Bangladesh: Randomized Controlled Trial JMIR Public Health Surveill 2025;11:e72233 doi: 10.2196/72233PMID: 40424617PMCID: 12152434
9. Biswas, H. K.; Biswas, R. Young-Onset Stroke in Bangladesh: A Focus on Rare Causes, Diagnostic Complexities, and Essential Solutions. Preprints 2025, 2025120821. https://doi.org/10.20944/preprints202512.0821.v1
10. Islam, M. S. ., Ahmed, K. ., Jahan, I., Kamal, M. M. ., Hossain, M. S. ., Arifuzzaman, M., Mahmud, R. ., Hasan, M. K. ., & Habib, M. . (2023). Patient's and Caregiver's Awareness On Secondary Prevention Strategy Of Ischemic Stroke. Journal of Dhaka Medical College, 31(1), 15-22. https://doi.org/10.3329/jdmc.v31i1.65430