

# **Disease Burden of Stroke in Bangladesh from 2015 to 2023 in Patients Receiving Rehabilitation: A Protocol for a Retrospective Cohort Study**

## **ABSTRACT**

Background: Stroke is a serious public health concern that has a significant impact on the global disease burden. It has significant social, economic, and healthcare consequences worldwide. To assess the total number of healthy years lost due to premature death and disability-related limitations, the World Health Organization (WHO) developed the disability-adjusted life years (DALYs) measure. Methods: We will conduct a retrospective cohort study and include all stroke patients who received rehabilitation services at the Centre for Rehabilitation of Paralysed (CRP) in Bangladesh from 2015 to 2019. Relevant data will be extracted from The CRP PDMS database, which includes data for 1835 patients and covers all divisions of Bangladesh. The primary outcome will be to calculate the disease burden of stroke by using DALYs, the level of disability, and the reason for the mortality rate in Bangladesh. Demographic characteristics and study outcomes will be summarised using descriptive statistics, Inferential statistics will be conducted, employing Pearson correlation for parametric data and either chi-square or Spearman rank correlation for nonparametric data. Multivariable logistic regression will be performed to determine the clinical variables associated with a worse clinical outcome. Ethics and dissemination: The study was approved by the Institute of Physiotherapy, Rehabilitation & Research (IPRR) (The Academic Institute of Bangladesh Physiotherapy Association) Ethics Committee (BPAIPRR/IRB/992/07/2023/663). The study's results will be published in peer-reviewed scientific journals and showcased at national and international conferences. Study Implication: Stroke is one of the major causes of prolonged disability. The prolongation of disease and disability leads to health-related, social and economic burdens. Usually, it's difficult to determine by the person and family level about the disease burden. On the other hand, the severity of stroke and post-stroke complications can be prevented by avoiding the risk factors. So, the study of finding the disease burden of stroke and the result of the implemented protocol of stroke can guide the management and awareness of prevention.