

Stroke in Latin America

Systematic review of incidence, prevalence and case-fatality in 1997–2021

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Background

Stroke is a major global cause of death and disability¹. 70% of strokes occur in populations of low-middle income (LMIC); and the subsequent disease burden is greater than in populations of high-income countries¹. Few epidemiological data exist for stroke in Latin America (LAC), composed primarily of LMIC^{2,3}.

The aim of this study was to determine epidemiological measures of incidence, prevalence, and 1-month case-fatality for stroke in LAC during 1997–2021.

Methods

A structured search was conducted to identify relevant references for prospective observational and cross-sectional studies in LAC populations from January 1997 to December 2021.

9,242 records were screened, and 12 selected for analysis (Fig.1-2).

Meta-analysis was performed using random-effect model to obtain pooled estimates with 95% confidence intervals.

The heterogeneity across the studies was assessed through visual inspection of the forest plot and determining the Chi² and I² statistic. (Fig.3).

Studies quality was assessed according to the risk of bias criteria described in the Joanna Briggs Institute's guide.

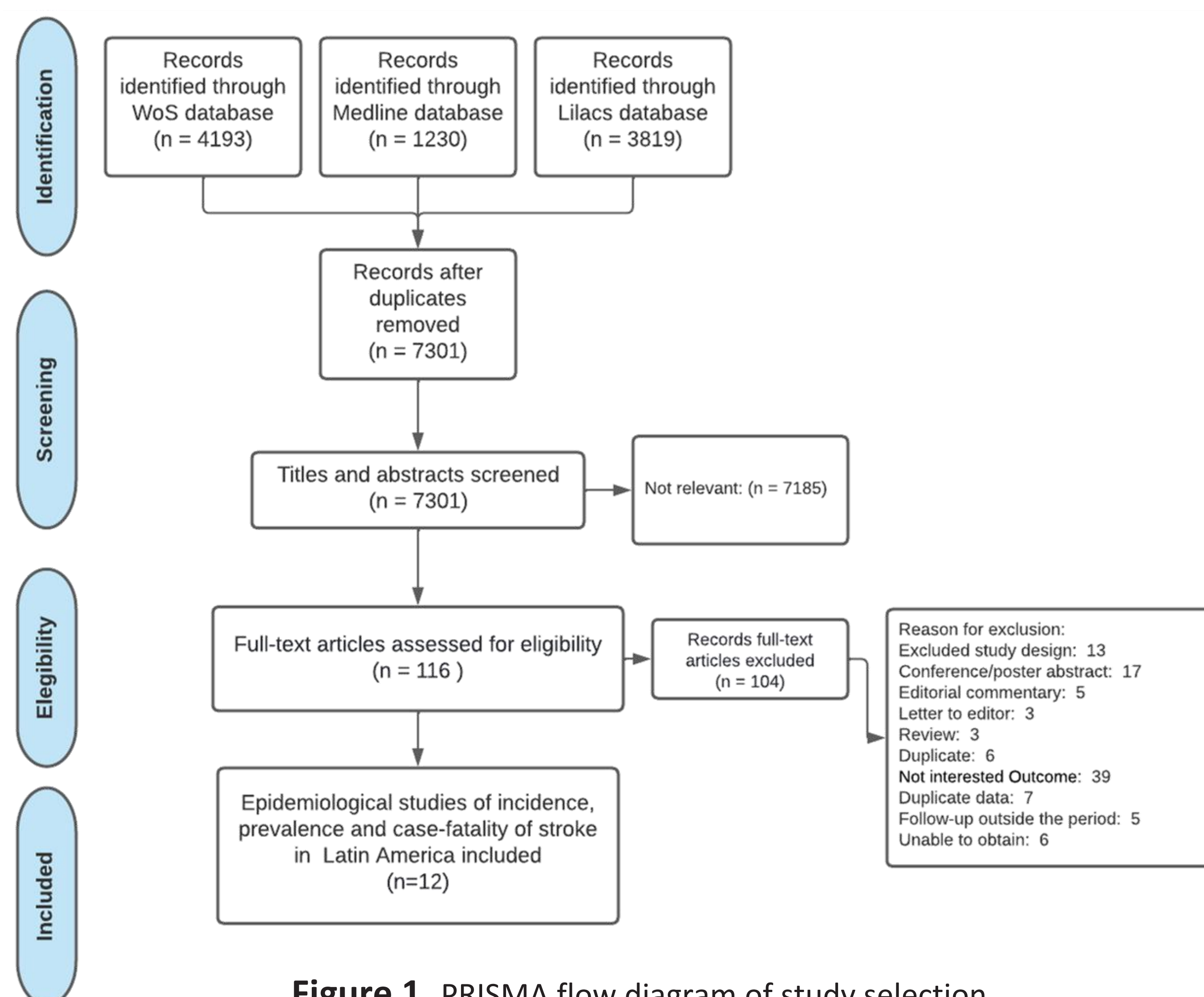


Figure 1. PRISMA flow diagram of study selection

Results



Figure 2. Location of studies assessing the incidence and prevalence of stroke in Latin America.

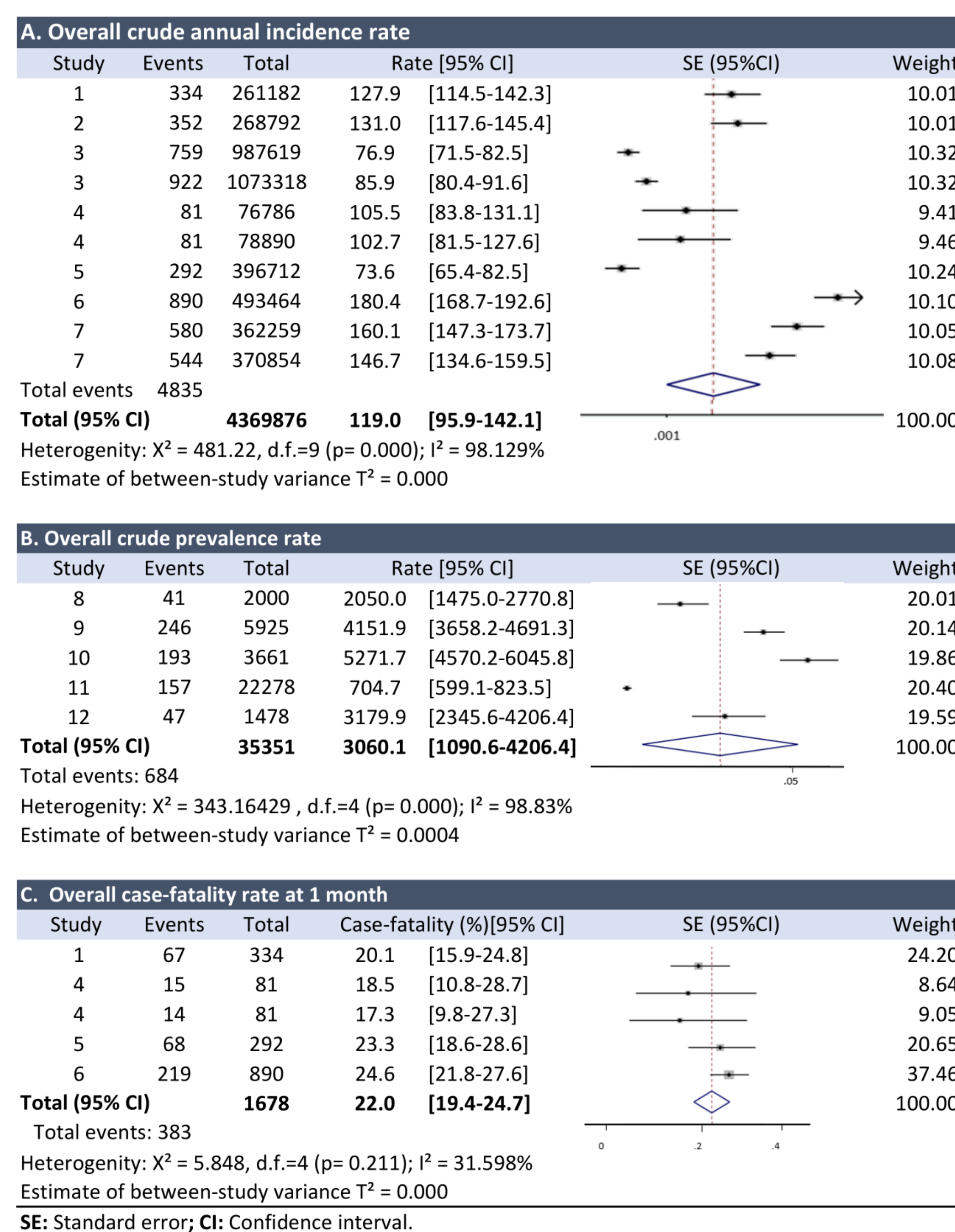


Figure 3. Latin American epidemiological measures; incidence, prevalence, and 1-month case-fatality for stroke.

Conclusions

This review contribute to our understanding regarding the burden caused by stroke in LAC. Large variation was detected in the stroke crude incidence and prevalence rates in the region.

Even though previous reports have considered LAC within the lowest stroke burden regions in the world,⁴ this information contributes to evidencing wide differences between countries.

More research is required in middle low or low-income populations in LAC, given their low representation.

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3. Camargo ECS, Bacheschi LA, Massaro AR. Stroke in Latin America. *Neuroimaging Clin N Am* 2005; 15: 283–296.

4. Krishnamurthi RV, Ikeda T, Feigin VL. Global, Regional and Country-Specific Burden of Ischaemic Stroke, Intracerebral Haemorrhage and Subarachnoid Haemorrhage: A Systematic Analysis of the Global Burden of Disease Study 2017. *Neuroepidemiology* 2020; 54: 171–179.