

Patterns of stroke recurrence according to subtype of first stroke event: The North East Melbourne Stroke Incidence Study (NEMESIS)

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[View references \(37\)](#)

Abstract

Background: Specific information about the nature of recurrent events that occur after each subtype of index stroke may be useful for refining preventive therapies. We aimed to determine whether stroke recurrence rates, the pattern of subtype recurrence, and prescription of secondary prevention agents differed according to initial stroke subtype. **Methods:** Multiple overlapping sources were used to recruit all first-ever stroke patients from a geographically defined region of Melbourne, Australia over a 7-year period from 1996 to 1999. Potential stroke recurrences (fatal and nonfatal) occurring within 7 years of the initial event were identified following patient interview and follow up of death records. Subjects were classified into the different Oxfordshire groups and the type of first-ever stroke was compared with recurrent stroke events. **Results:** One thousand, three hundred and sixteen first-ever strokes were registered during the 7-year period (mean age 74.5 years). A total of 107 first recurrent stroke events (fatal and nonfatal) occurred among those with a first-ever ischemic stroke or intracerebral hemorrhage (ICH) during the 7-year follow-up period. The recurrent stroke subtype was different to the index stroke subtype in most (58%) patients. People with partial anterior circulation infarct had the greatest proportion of recurrences (17%), with a third of these being the more severe total anterior circulation infarct subgroup. The relative risk of ICH after an index lacunar infarct (LACI) compared with an index non-LACI was 4.06 (95% CI 1.1-14.97, P = 0.038). Prescription of secondary prevention agents was greater at 7 years after stroke than at hospital discharge, and was similar between ischemic stroke subtypes. **Conclusion:** Approximately 9% of people with first-ever stroke suffered a recurrent event, despite many being prescribed secondary prevention agents. This has implications for the uptake of current preventive strategies and the development of new strategies. The possibility that ICH is greater among index LACI cases needs to be confirmed. © 2008 The Author. Journal Compilation © 2008 World Stroke Organization.

Reaxys Database Information

Author keywords

Australia; Cerebrovascular disease; Epidemiology; Stroke subtype

Indexed Keywords

EMTREE drug terms: anticoagulant agent; antihypertensive agent; antilipemic agent; antithrombotic agent

EMTREE medical terms: adult; aged; article; Australia; brain hemorrhage; cerebrovascular accident; controlled study; disease classification; female; follow up; human; interview; major clinical study; male; priority journal; recurrence risk; secondary prevention