Abstract: **P460**

**Time trends in incidence rates of total, ischemic and haemorrhagic stroke in Norway 2001-2014 using national administrative data from the CVDNOR project**

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Introduction: Diverging stroke incidence rates have been reported in Northern European countries over the last decades. In Norway, national trends of stroke incidence are unknown.

Purpose: We estimated time trends in incidence (first time) of fatal and non-fatal ischemic stroke, haemorrhagic stroke, subarachnoid bleeding and unspecified stroke in the period 2001-2014, by sex and age group.

Methods: Nationwide hospital discharge diagnoses in the CVDNOR database and in the National Patient Registry were linked to the National Cause of Death Registry. All hospitalizations with stroke as main or secondary diagnosis and out-of-hospital deaths with stroke as underlying cause for individuals ≥ 25 years were obtained during 1994-2014. Incident stroke was defined as hospitalization or out-of-hospital-death due to stroke with no prior hospitalization for stroke or stroke sequela during the previous seven years. Age adjusted incidence rate ratios (IRR) per year were estimated by Poisson regression analyses. We used direct standardization against the 2001 Norwegian population.

Results: During 44,633,176 person-years of follow up from 2001 to 2014, we identified 156,041 incident fatal or non-fatal total stroke cases, of which 71% were ischemic, 12% haemorrhagic, 4% subarachnoid haemorrhages and 12% unspecified. From 2001 to 2014, age-standardized incidence of total stroke declined from 476 to 341 cases per 100,000 person-years among men and from 344 to 239 among women. Incidence rates of total and ischemic stroke declined in individuals 45 years and older. Incidence rates of ischemic stroke increased by 2% per year in men 25-44 years, IRR (95% CI) 1.02 (1.00, 1.02), p=0.001. Incidence rates of haemorrhagic stroke decreased in the age group 45-84 years and increased by 2% per year in men 85 years and older, IRR 1.02 (1.00, 1.03), p=0.009.

Conclusion: Total stroke incidence rates declined from 2001 to 2014 in the Norwegian adult population 45 years and older. Increased incidence rates of ischemic stroke in men below 45 years and of haemorrhagic stroke in men 85 years and older are worrying and need further investigation.