

## P1254

**Stroke severity and subsequent mortality are worse with atrial fibrillation than in patients without atrial fibrillation**

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**Background:** Data on stroke severity and prognosis in patients with AF are lacking and contemporary knowledge thereon could help identify preventive strategies.

**Purpose:** To investigate stroke severity among patients with and without AF, and secondly determine in-hospital and 1-year mortality in the two groups.

**Methods:** Using the nationwide Danish Stroke Registry we identified patients with first-time stroke (1 January 2005–31 December 2016). Patients with prior or new AF were matched 1:1 by sex, age, and calendar-year with patients with no history of AF. Stroke severity on admission was determined by the Scandinavian Stroke Scale (SSS) (0–29 points indicates very severe to severe stroke, 30–58 points indicates moderate to mild stroke) based on eye movements, paralysis and level of consciousness. The Kaplan-Meier estimator was used to calculate cumulative risk of death in AF patients versus non-AF patients. Risk of 1-year mortality was evaluated in an adjusted multivariable Cox-proportional hazard model.

**Results:** We identified 90,042 patients with first-time stroke; 16,186

(18.0%) had prior or new AF, and were included in the study, and matched with patients without AF. The median age was 80 years (p25-p75: 72–86 years) and 52.2% were females. AF patients had a higher comorbidity burden and more severe strokes compared with non-AF patients (median SSS 44 (p25-p75: 25–54) vs. 49 (p25-p75: 36–56), P value <0.0001) and higher proportion with very severe to severe stroke (SSS 0–29) (29.7% versus 19.1%, P value <0.0001). In-hospital mortality was higher among AF-patients versus non-AF patients (11.3% vs 7.8%, P value <0.0001). Crude 1-year cumulative risk of death was higher among AF-patients versus non-AF patients (32.3%, 95% CI: 31.6%–33.1% vs. 22.9%, 95% CI: 22.2%–23.6%, P value <0.0001) (Figure 1), and this difference remained significant after adjustment (hazard ratio 1.34, 95% CI 1.28–1.40, P value <0.0001).

**Conclusion:** In a nationwide contemporary stroke registry cohort, AF was associated with adverse stroke severity compared with stroke patients without AF. In-hospital mortality and 1-year mortality was higher among AF patients compared with non-AF patients.

Figure 1: Crude cumulative incidence curve of 1-year mortality

