Abstract citation ID: aakag023.1026

ABSTRACT NUMBER: ESOC2026A2222

STROKE UNIT CARE IS ASSOCIATED WITH BETTER LONG-TERM SURVIVAL AFTER ACUTE ISCHEMIC STROKE

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Background and aims: The Stroke Action Plan for Europe (SAP-E) 2018–2030 targets >90% of stroke patients receiving first-line care in dedicated stroke units. By law, Lithuanian suspected stroke patients are transported to the nearest stroke-ready hospital for diagnostic confirmation. We compared long-term survival between acute ischemic stroke (AIS) patients subsequently hospitalized at Vilnius University Hospital (VUH) and those transferred to non-stroke centers (NCs).

Methods: We retrospectively identified AIS patients, diagnosed between October 2020 and October 2025 at VUH, one of six Lithuanian comprehensive stroke centers (CSCs), and linked clinical data to the Lithuanian Death Registry. Patients were grouped according to treatment location (CSC vs NC). Survival time was defined from stroke onset to death or administrative censoring, with follow-up truncated at 5 years. Survival was compared using Kaplan–Meier curves and the log-rank test. Cox proportional hazards models were used to estimate adjusted mortality risk.

Results: A total of 5,589 patients were included. Survival was significantly higher in the CSC group compared to NCs both at 90 days (80.6% vs 71.9%) and 5 years (58.4% vs 45.9%, $P<0.0001$). Kaplan-Meier curves diverged early after stroke onset and remained almost parallel throughout the 5-year follow-up. After adjustment for age, sex, baseline NIHSS, and reperfusion therapy, treatment at the CSC was associated with significantly lower mortality compared with transfer to NCs (HR 0.88, 95% CI 0.80–0.98).

Conclusions: AIS patients treated at a CSC demonstrated significantly better long-term survival than those transferred to NCs, supporting SAP-E goals and underscoring the benefits of stroke unit care.

Conflict of interest: All authors: nothing to disclose.

Figure 1 - belongs to Methods

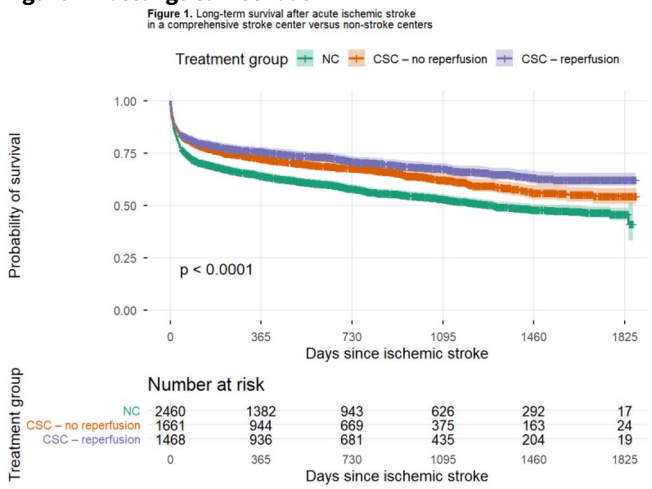

Figure 2 - belongs to Results

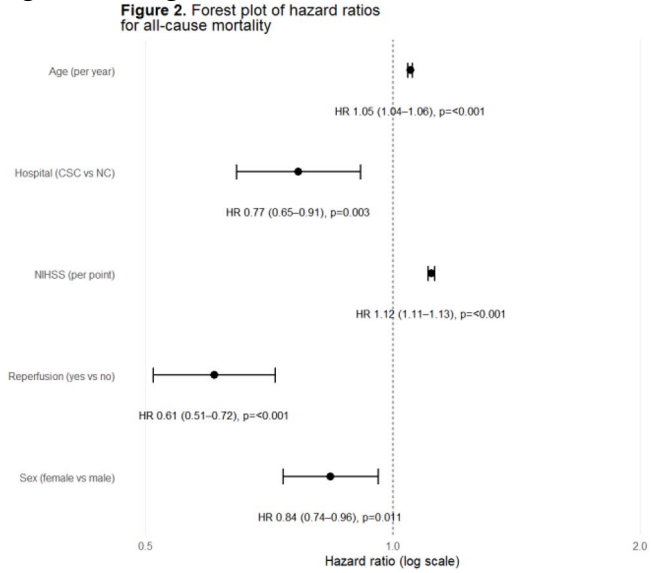

Figure 3 - belongs to Conclusions