Oral anticoagulant therapy and risk of admission to long-term care in patients with atrial fibrillation: a nationwide cohort study

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Background: The impact of oral anticoagulants (OACs) on outcomes in patients with atrial fibrillation (AF) has been a focus of extensive research in the past decades, but there is a complete paucity of information about their effect on the need of long-term care (LTC) in this aging and multimorbid patient group.

Purpose: To assess the hypothesis that OAC therapy is associated with lower need of LTC in patients with AF.

Methods: The registry-based FinACAF cohort study covers all patients with incident AF from all levels of care in Finland from 2007 to 2018, as well as all their OAC purchases, LTC admissions, and information on previous home care acuity. Incidence rate ratios (IRRs) for admission to any type of LTC were estimated with Poisson regression using Lexis-type data structure based on three time scales: follow-up time from AF diagnosis, calendar year, and age. OAC use was treated as a time-varying variable from first OAC purchase onwards.

Results: We identified 188 752 patients (49.0% female; mean age 71.4 years; mean follow-up 3.6 years) with incident AF without prior LTC, of whom 143 534 (76.0%) initiated OAC therapy and 11 775 (6.2%) were admitted to LTC. OAC therapy was associated with a lower rate of LTC admission (adjusted IRR with 95% CI: 0.79 (0.76-0.82)). The association was most evident among patients over 70 years (Kaplan-Meier curve of survival without LTC in Figure). Warfarin and direct oral anticoagulants (DOACs) were both associated with lower need of LTC. Furthermore, when compared to warfarin, DOACs were associated with a lower LTC admission rate (adjusted IRR with 95% CI: 0.69 (0.61-0.79)). No significant disparities were observed between different DOACs. High age and previous need of home care, as well as dementia, psychiatric disorders, and ischemic stroke were the strongest factors associated with the need of LTC.

Conclusions: In this nationwide cohort of patients with incident AF, OAC therapy, particularly with DOACs, was associated with a substantially lower risk of admission to LTC.
Survival without LTC. Age over 70 years.