Abstract: P2524

Extent and outcomes of frailty in older people with atrial fibrillation: a nationwide study using primary care data

Authors:
C Wilkinson1, O Todd2, M Yadegarfar2, A Clegg2, CP Gale3, M Hall3, 1University of Leeds - Leeds - United Kingdom of Great Britain & Northern Ireland, 2University of Leeds, Academic Unit of Elderly Care and Rehabilitation - Leeds - United Kingdom of Great Britain & Northern Ireland, 3University of Leeds, Leeds Institute of Cardiovascular and Metabolic Medicine - Leeds - United Kingdom of Great Britain & Northern Ireland,

Topic(s):
Cardiovascular Disease in the Elderly

Citation:

Funding Acknowledgements:
CPG: Bayer, BMS, AstraZeneca, Novartis Vifor Pharma, Menerini

Background
The prevalence of atrial fibrillation (AF) in older people is increasing, as is frailty. Frailty describes an increased vulnerability to adverse outcomes, whereby the balance of risk and benefit associated with an intervention may be more nuanced. However, there are limited data from a community setting on the prevalence of AF and frailty in older people.

It is important to understand the burden of AF and frailty, and the associated impact on mortality and stroke disease in order to inform shared decision making with patients, and also inform guidelines for this increasing group of older people.

Purpose
To estimate the prevalence of AF and the burden of frailty in patients with AF, in a large primary care dataset. To report stroke and mortality by frailty group.

Methods
We used electronic health records of 537,051 patients in England aged 65 years or older on 31/12/2015, with follow-up for all-cause mortality and ischaemic or unclassified stroke to 11/04/2017. Patients with a history of AF were identified using Clinical Terms Version 3 (CTV-3) codes. Frailty was identified up to the point of study entry using the electronic frailty index (eFI, the proportion of deficits out of 36 possible deficits), and categorised into robust (0-0.12), mild (>0.12-0.24), moderate (>0.24-0.36) or severe (>0.36) frailty.

Median CHA2DS2-VASc and ATRIA scores for patients with frailty were compared with the robust group using Mann-Whitney.

The association between frailty status, all-cause mortality and stroke was calculated using Cox proportional hazards models, adjusted for age and sex.

Results
Of the cohort, 61,177 patients (11.4%) had AF. Of those with AF, 27,987 (45.8%) were female, and 54,734 (89.5%) had frailty. 6,443 (10.5%) were classified as robust; 20,352 (33.3%) mildly frail; 20,315 (33.2%) moderately frail; and 14,067 (23.0%) severely frail.

The median number of eFI-defined deficits among patients with AF was 9 (interquartile range [IQR] 6-12).
Median stroke and bleeding scores were higher in those with frailty compared with the robust group (CHA2DS2-VASc 4 [IQR 3-5] v 2 [2-3], p=<0.001; ATRIA 4 [2-6] v 1 [0-2], p=<0.001).

During 73,338 patient-years of follow-up, there were 6,805 (11.1%) deaths and 945 (1.54%) strokes. Compared with the robust group, all-cause mortality and stroke were higher with increasing frailty. Mortality: mild frailty hazard ratio 1.53 (95% confidence interval 1.29-1.80); moderate frailty 2.50 (2.13-2.94); severe frailty 4.26 (3.63-5.01). Stroke: mild frailty 1.36 (0.99-1.85); moderate frailty 1.67 (1.23-2.28); severe 1.99 (1.45-2.73).

Conclusion
The prevalence of AF among those aged over 65 years in primary care in England is high, the majority of whom are frail. Increasing severity of frailty was associated with higher mortality and stroke rates. The extent to which the judicious use of oral anticoagulation may improve clinical outcomes for patients with AF and frailty is currently unknown.