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Data Article

Data on the use of oral anticoagulants in nonagenarians with atrial fibrillation



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ABSTRACT

The data presented in this article are related to the research article entitled "Patients aged 90 years or older with atrial fibrillation treated with oral anticoagulants: A multicentre observational study" [1]. This article unveils original data of a cohort of 546 patients aged 90 years or older with non-valvular atrial fibrillation treated with oral anticoagulants. Here, we describe the time course of ischemic stroke and systemic embolism and of major bleeding according to the presence of outcome predictors and report the causes of permanent discontinuation and of death. Furthermore, we report data on the incidence of ischemic stroke and systemic embolism, of major bleeding, of permanent discontinuation and of all-cause death comparing i) oral anticoagulant naïve users vs. long-term oral anticoagulant users, ii) patients on anticoagulant therapy for less than 2 years (new users) vs. patients on anticoagulant therapy for more than 2 years. The material of this data article provides a better understanding on the use of oral anticoagulants in this fragile population and facilitates further critical analysis. Moreover, it aims at highlighting the importance of increasing knowledge in patients aged 90 years or older. These

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patients are often excluded from or under-represented in clinical trials and cohort studies.

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Specifications table

Subject area	Internal and Cardiovascular Medicine
More specific subject area	Oral anticoagulation in patients aged 90 years or older with atrial fibrillation
Type of data	Tables and Figures
How data was acquired	Document analysis were retrospectively and prospectively collected
Data format	Raw, analyzed
Experimental factors	Patients aged 90 years or older with non-valvular atrial fibrillation treated with oral anticoagulants were included. Patients on direct oral anticoagulants were derived from a prospective multicentre registry while patients on vitamin-K antagonists from the Anticoagulation Clinic of the University Hospital in Perugia.
Experimental features	Data on ischemic stroke and systemic embolism, major bleeding, permanent discontinuation and all-cause death were i) prospectively collected in patients treated with direct oral anticoagulants through every-6-month visits and ii) retrospectively collected since the start of anticoagulant treatment or when the patient became 90 years of age or older in nonagenarians treated with vitamin-K antagonists
Data source location	A time-to-event analysis taking competing risk by death into account was performed. Department of Internal and Cardiovascular Medicine, Perugia, Italy.
Data accessibility	The data are with this article.
Related research article	Giustozzi M, Vedovati MC, Verso M, Scrucca L, Verdecchia P, Conti S et al. Patients aged 90 years or older with atrial fibrillation treated with oral anticoagulants: A multicentre observational study. <i>Int J Cardiol</i> 2018; in press [1].

Value of the data

- The data presented in this article provide original information and increase knowledge on the use of oral anticoagulants in patients aged 90 years or older with atrial fibrillation.
- The data can be used by clinicians and researchers to generate hypothesis for further studies and as reference.
- These data could support the decision making process on the use of oral anticoagulation in patients aged 90 years or older.

1. Data

The dataset of this article comprises five data files that were generated from further analysis of 546 patients aged 90 years or older with atrial fibrillation treated with oral anticoagulants.

Fig. 1 shows the selection of the population with the number of patients divided according to type [direct oral anticoagulants (DOAC) or vitamin-K antagonist (VKA)] and duration (already on anticoagulant or naïve) of oral anticoagulation. The time course of ischaemic stroke/TIA and systemic embolism (panel A) and for major bleeding (panel B) according to the presence of outcome predictors are given in Fig. 2. Main causes of permanent discontinuation in the overall population and according to the type of anticoagulation received are shown in Table 1. The same table reports the percentages of patients that discontinued anticoagulants or died and the annual incidence rates of discontinuation and death. Data on hazard ratios and subdistribution hazard ratios of main predictors for permanent discontinuation are reported in Fig. 3. Table 2 shows data on comparisons of sub-group of patients, specifically i) oral anticoagulant naïve users vs. long-term oral anticoagulant users and ii) patients on anticoagulant therapy for less than 2 years (new users) vs. patients on anticoagulant therapy for more than 2 years. Here, we report data in the overall population and according to treatment group.

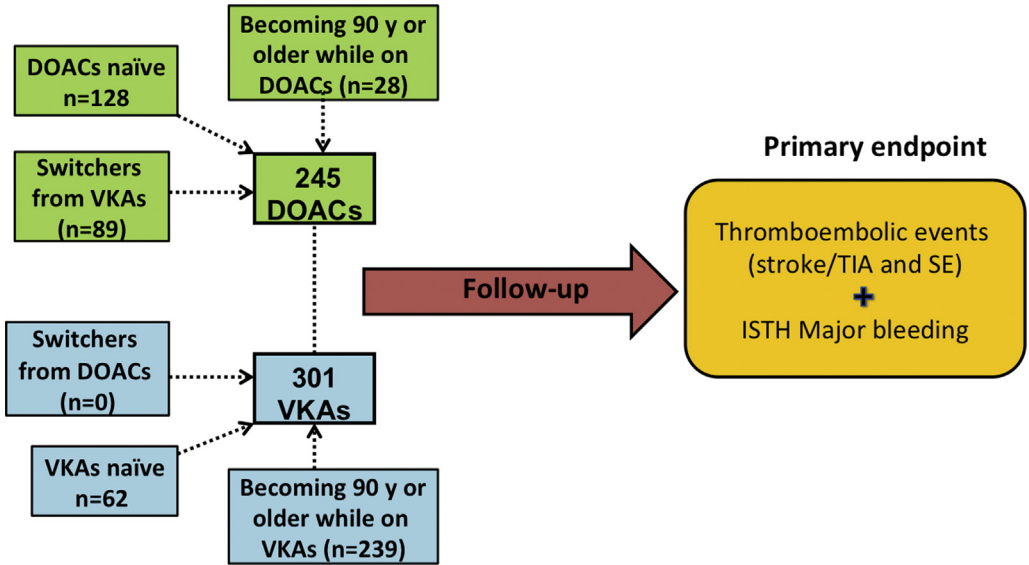


Fig. 1. Flow-chart of patients.

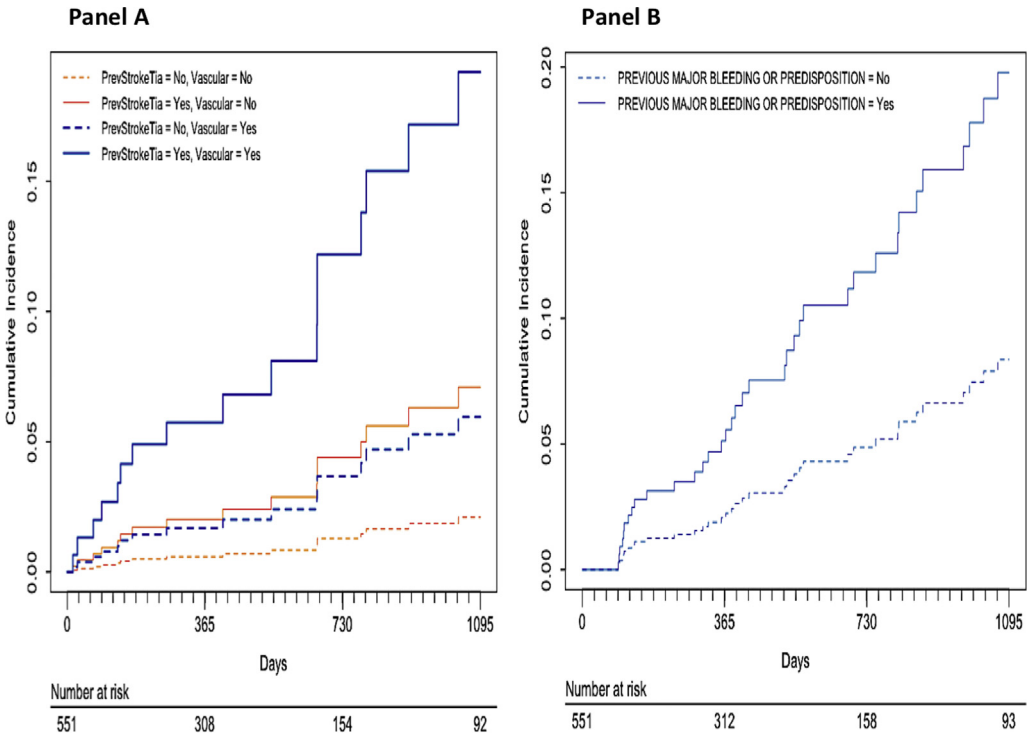


Fig. 2. Time course of and main predictors for ischaemic stroke/TIA/systemic embolism and major bleeding.

Table 1

Main causes of permanent discontinuation and of all-cause death in the overall population and according to the type of anticoagulation.

Variable	All patients (n = 546)	VKAs patients (n = 301)	DOACs patients (n = 245)
Permanent discontinuation, n (%)	95 (17%; 10.4% pts-y)	72 (24%; 10.9% pts-y)	23 (9%; 8.9% pts-y)
Main causes			
Bleeding	41	30	11
Physician/patient's decision	20	14	6
High risk of falls	5	5	0
Poor adherence	5	5	0
Cancer	4	4	0
Renal failure	2	0	2
Unknown	14	12	2
Other	4	2	2
Death, n (%)	146 (16.0% pts-y)	97 (14.8% pts-y)	49 (19.1% pts-y)
Fatal bleeding	9	5	4
Fatal ischemic stroke	2	1	1
Fatal AMI	3	1	2

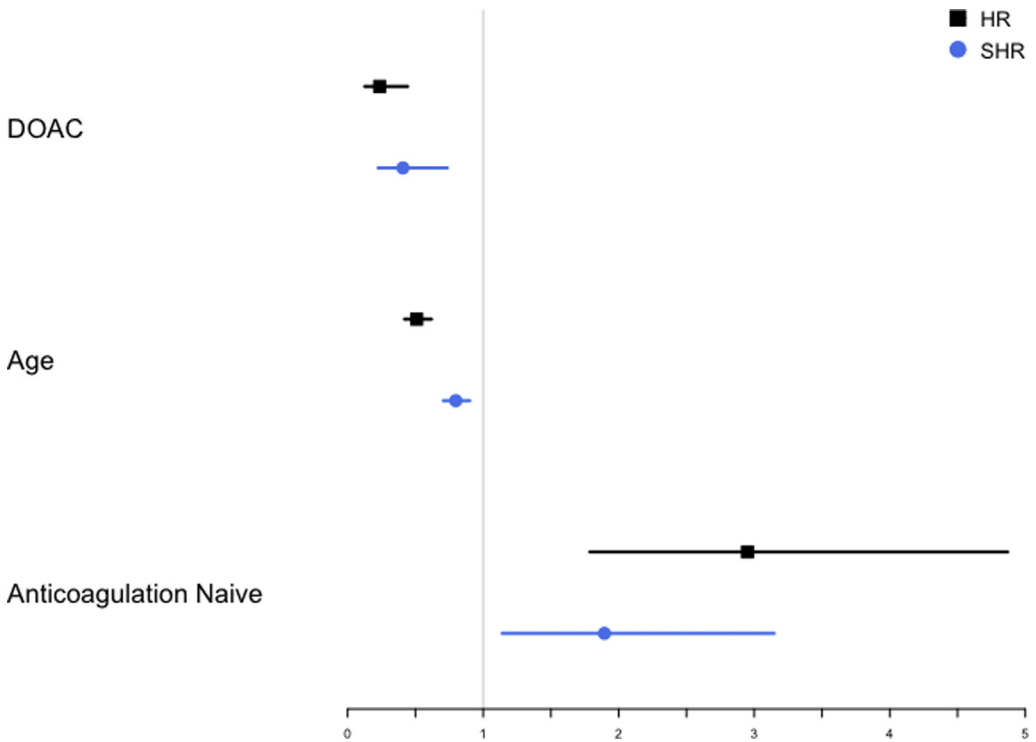


Fig. 3. Main predictors for permanent discontinuation.

2. Experimental design, materials and methods

Data on DOAC patients were derived from a multicentre prospective Italian registry of atrial fibrillation patients [2] while data on VKA patients were retrospectively derived from the database of the Anticoagulation Clinic of Perugia. For both group, data were collected since time of anticoagulation

Table 2

Data on comparisons of sub-group of patients: i) anticoagulation naïve vs. anticoagulation non-naïve patients, ii) new users vs. non-new users.

Outcome event	Ischaemic stroke/ TIA/SE	Major bleeding	All-cause death	Permanent discontinuation
	SHR, 95% CI	SHR, 95% CI	SHR, 95% CI	SHR, 95% CI
Anticoagulation naïve	1.85 (0.55–6.24)	1.24 (0.47–3.31)	1.23 (0.52–2.93)	1.63 (0.81–3.28)
DOAC ^a Anticoagulation naïve	0.19 (0.03–1.40)	1.12 (0.27–4.60)	0.62 (0.25–1.54)	0.76 (0.26–2.24)
New users	1.37 (0.51–3.71)	1.62 (0.78–3.36)	1.10 (0.68–1.79)	1.10 (0.66–1.82)
DOAC ^a new users	0.27 (0.04–1.72)	0.86 (0.24–3.00)	0.67 (0.33–1.38)	1.07 (0.40–2.85)

^a Anticoagulation naïve patients treated with DOACs compared with anticoagulation naïve patients treated with VKAs.

prescription or since the patient became 90 years old. Follow-up was performed every 6 months by visits or telephone contacts in the DOAC group while follow-up was retrospectively retrieved in the VKA group.

Due to the expected high mortality of study patients, we performed a time-to-event analyses taking death as competing risk. We calculated the cumulative incidences and the risks of a) ischemic stroke/TIA and systemic embolism; b) major bleeding; c) permanent discontinuation. Data were reported as sub-distribution hazard ratios (SHR) and 95% confidence interval. Statistical analysis was performed using R 3.5.0.

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Transparency document

Transparency document associated with this article can be found in the online version at <https://doi.org/10.1016/j.dib.2019.103794>.

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