The economic burden attributable to atrial fibrillation in nine European countries: perspectives from the GARFIELD-AF registry

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BACKGROUND

- Atrial fibrillation (AF) is a common disease, which is having an escalating impact on public health.
- The rising global burden of AF is well-documented due to aging of population, an increased prevalence of chronic heart diseases and more frequent diagnosis.
- Patients typically present with other cardiovascular comorbidities and have an elevated risk of cardiovascular and cerebrovascular events and mortality.[1] Health care resource utilisation (HCRU) increases incrementally after diagnosis with a greater frequency of hospitaliations, medical consultations and prescriptions.[2]

PURPOSE

- We evaluated the economic burden of AF in nine European countries (Belgium, France, Germany, Italy, Netherlands, Poland, Spain, Sweden and UK).

METHODS

- Data were gathered from the Global Anticoagulant Registry in the FIELD–Atrial Fibrillation (GARFIELD-AF), a prospective, global registry of adults with newly (<6 weeks) diagnosed AF and ≥1 stroke risk factor(s).[3]
- Total annual direct costs due to AF were the sum costs of: medical visits, drug therapy, hospital admissions, diagnostic and other medical procedures identified on the electronic case report form.
- Direct unit costs were quantified based on days on drug therapy and events recorded in GARFIELD-AF registry.
- Varying lengths of follow-up were considered using Bang and Tsiatis method to handle censored cost data.[4]
- Mean cost per patient/year was expressed as absolute cost (€) and as a percentage of the country-specific healthcare expenditure per capita.[5]

RESULTS

- Data were collated from 20,074 patients in GARFIELD-AF; median follow-up was 1.97 years, including 42,435 person-years of observation.
- Highest expenditure was observed in Belgium and UK (€3,473 and €2,712, respectively).

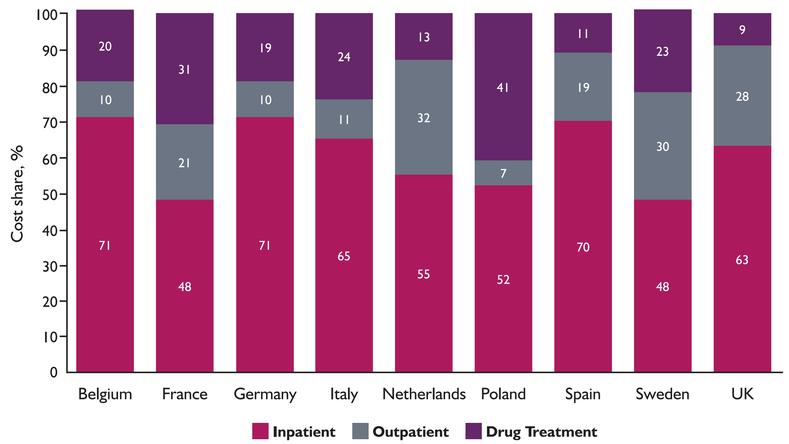
Table 1. *Country-specific mean cost per patient/year (€)*

Country	n	Mean Cost (€)	Std. Err.	95% CI	
Belgium	1711	3473	147	3185	3761
France	1798	1670	74	1524	1815
Germany	3538	1880	69	1746	2014
Italy	2181	1345	77	1194	1496
Netherlands	1185	1600	105	1394	1806
Poland	2428	790	21	749	831
Spain	2439	1665	92	1483	1846
Sweden	1227	2161	96	1973	2349
UK	3567	2712	111	2494	2930

CI=confidence interval, Std. Err.=standard error

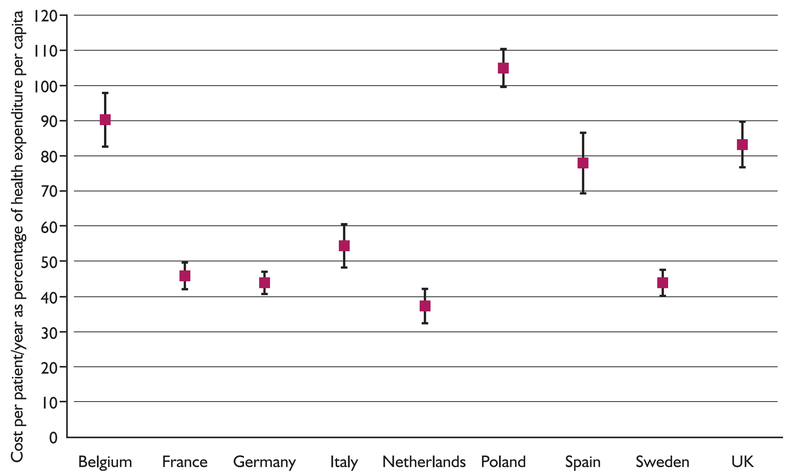
- Inpatient care was the main cost in all countries, ranging between 48% of the total costs (France and Sweden) and 71% (Belgium and Germany);
- Outpatient costs varied between 7% of the total cost (Poland) and 32% (Netherlands).

Figure 1. *Cost share observed by country*



- Poland, with the smallest total cost per patient/year, had the highest expenditure per capita (105%).
- Different treatment combinations are likely to be responsible for variations in drug treatment costs.

Figure 2. *Mean cost per patient/year as percentage of country-specific healthcare expenditure per capita*



CONCLUSIONS

- AF is gaining increasing importance as a public health problem.
- The economic burden correlates with differences in management between countries.
- Inpatient care represents the largest part of the total care costs in all countries.
- Further stratification of patients (e.g. using risk scores) may improve our understanding of the healthcare expenditure associated with AF.

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DECLARATION OF INTEREST

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TRI Thrombosis Research Institute

www.garfieldregistry.org

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AF Garfield
global anticoagulant registry in the field