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Patient preferences for chronic treatment for stroke prevention: results from the EUropean Patient Survey in Atrial Fibrillation (EUPS-AF)

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Introduction

- Atrial fibrillation (AF) is a chronic condition that requires long-term treatment to prevent severe cardiovascular sequelae, such as stroke.
- Many patients with AF receive oral vitamin K antagonists (VKAs), such as warfarin, to reduce the risk of stroke.
  - VKAs are associated with a high burden for patients, including the need for regular monitoring of anticoagulation status and dose adaptation.
- Novel oral anticoagulants (NOACs), such as the direct factor Xa and factor IIa inhibitors, have a reduced requirement for regular monitoring and dose adaptation, and thus have the potential to reduce the burden of AF management for patients.
- We conducted the European Patient Survey in Atrial Fibrillation (EUPS-AF) to identify and understand the unmet healthcare needs of patients with AF from a patient perspective.
  - Here, we assess the burden of current, primarily VKA-based, treatment for stroke prevention in AF and explore patient preferences for AF therapy in France, Germany, Italy, Spain and the UK.

Methods

- The questionnaire used for the 2008 Commonwealth Fund International Health Policy Survey of Chronically Ill Adults[1] was adapted for the EUPS-AF by including questions relevant to patients with AF.
- Using computer-assisted digital telephone dialling, a random sample of the adult populations with a telephone landline in France, Germany, Italy, Spain and the UK was screened for AF.
- Structured telephone interviews were conducted with patients aged ≥ 18 years with AF, or individuals who were receiving oral anticoagulation for a heart rhythm disturbance, between February and July 2011.

Results

- Baseline demographics and characteristics of the 1507 survey respondents are shown in Table 1.

Use of oral anticoagulation medication varied substantially among countries

- Prompted recall of oral anticoagulation medication revealed substantial differences in VKA utilization among the surveyed countries.
  - The most widely prescribed VKA in each of the countries surveyed was acenocoumarol in Spain (56.1% of patients), generic warfarin in the UK (48.7%), phenprocoumon in Germany (47.3%), branded warfarin (Coumadin®) in Italy (39.1%) and fluindione in France (23.6%) (Table 2).

Most patients were positive about the reduced requirement for anticoagulation monitoring with NOACs compared with VKAs

- Overall, 60.7% of the 789 respondents who regularly had their anticoagulation status (prothrombin time [PT]/international normalized ratio [INR]) monitored responded positively to the possibility of reduced anticoagulation monitoring (Figure 1a).
  - Respondents in Italy were the most positive about the potential for reduced monitoring (77.9% in favour), and respondents in France and Germany were the least positive (49.0% and 47.5% in favour, respectively).
- Of the 479 respondents who were positive about the possibility of reduced monitoring, 28.0% declared their reason to be the time it would save, and 29.0% the fact that they would no longer need to visit a monitoring centre (Figure 1b).
- Of the 199 patients responding negatively to the possibility of reduced monitoring, the most cited reason was the need to know their PT/INR (41.7%; Figure 1c).

Most patients were positive about the lack of requirement for dose adaptation with NOACs

- Overall, 55.0% of the 1138 patients receiving medication for AF were positive about the possibility of no longer needing dose adaptation for oral anticoagulation (Figure 2a).
  - Respondents in Italy were the most positive about the possibility of no longer requiring dose adaptation (66.7% in favour), and respondents in France and Germany were the least positive (52.4% and 38.1%, respectively).
- Of the 626 respondents who were positive about the possibility of no longer requiring dose adaptation, 18.7% declared their reason to be a reduction in the degree of control their condition would require, and 17.3% the fact that treatment would require less coordination, and thus would be less confusing and easier to organize (Figure 2b).
- Of the 161 patients responding negatively to the possibility of no longer requiring dose adaptation, the most cited reason was an increase in uncertainty about correct dosing (18.6%; Figure 2c).

Most patients responded positively to the possibility of a reduced requirement for anticoagulation monitoring and a lack of requirement for dose adaptation

Table 1. Respondent demographics and characteristics

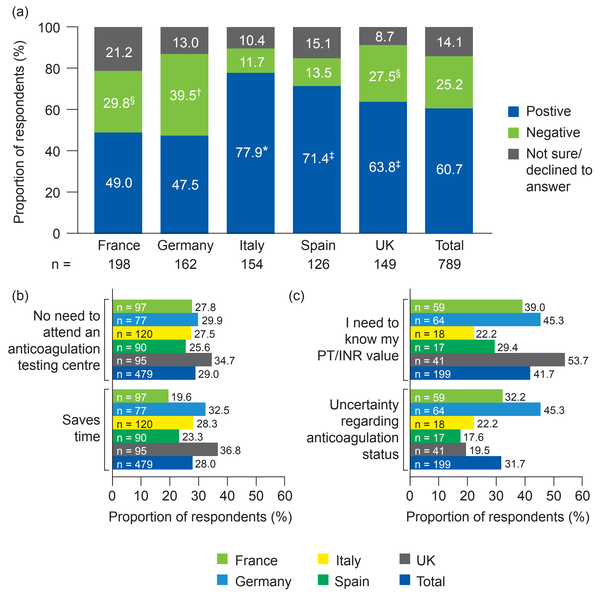
	France (n = 300)	Germany (n = 300)	Italy (n = 302)	Spain (n = 305)	UK (n = 300)	Total (n = 1507)
Mean age, years (SD)	68.5 (13.7)	70.4 (10.5)	70.8 (12.2)	70.8 (13.7)	70.3 (11.9)	70.1 (12.5)
< 50 years, n (%)	22 (7.3)	17 (5.7)	19 (6.3)	24 (7.9)	20 (6.7)	102 (6.8)
50–65 years, n (%)	91 (30.3)	55 (18.3)	57 (18.9)	54 (17.7)	65 (21.7)	322 (21.4)
≥ 65 years, n (%)	187 (62.3)	228 (76.0)	226 (74.8)	227 (74.4)	215 (71.7)	1083 (71.9)
Male, n (%)	153 (51.0)	154 (51.3)	152 (50.3)	138 (45.2)	153 (51.0)	750 (49.8)
Number of current medications, mean (SD)	5.7 (4.1)	5.4 (4.0)	5.4 (3.3)	6.0 (3.9)	6.1 (4.1)	5.7 (3.9)

Table 2. Prompted recall of anticoagulation medications taken by respondents

	France (n = 300)	Germany (n = 300)	Italy (n = 302)	Spain (n = 305)	UK (n = 300)	Total (n = 1507)
Aspirin, n (%)	**101 (33.7)**	64 (21.3)	111 (36.8)	38 (12.5)	120 (40.0)	434 (28.8)
Warfarin, n (%)	2 (0.7)	5 (1.7)	21 (7.0)	6 (2.0)	**146 (48.7)**	180 (11.9)
Coumadin®, n (%)	11 (3.7)	2 (0.7)	**118 (39.1)**	4 (1.3)	7 (2.3)	142 (9.4)
Phenprocoumon, n (%)	1 (0.3)	**142 (47.3)**	4 (1.3)	2 (0.7)	3 (1.0)	152 (10.1)
Acenocoumarol, n (%)	11 (3.7)	2 (0.7)	22 (7.3)	**171 (56.1)**	3 (1.0)	209 (13.9)
Fluindione,[a] n (%)	71 (23.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	N/A

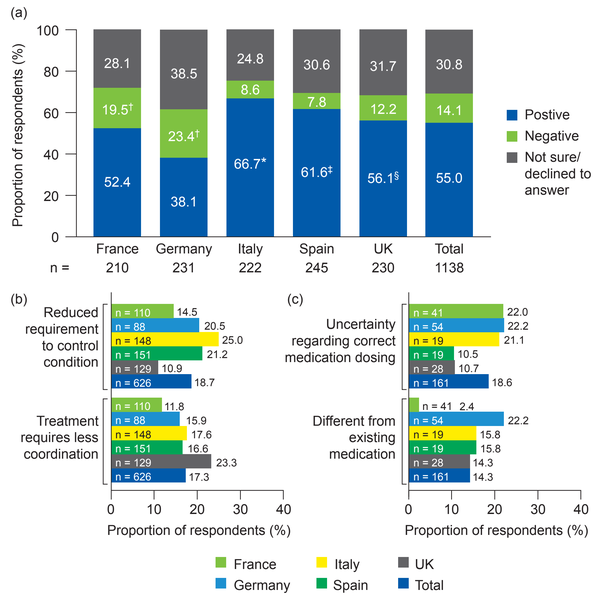
Highest values are indicated in bold for each country. Some patients did not receive any anticoagulation medication.
[a]Question only included for respondents in France.
N/A, not applicable.

Figure 1. Opinion of patients who regularly undergo anticoagulation monitoring regarding the possibility of a reduced requirement for monitoring: (a) overall opinion; (b) most cited reasons for a positive opinion; (c) most cited reasons for a negative opinion



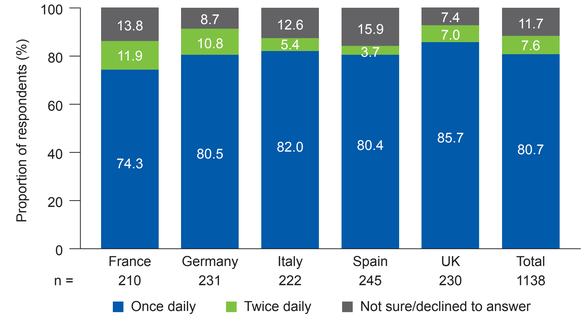
*$p < 0.05$ vs all countries except Spain; †$p < 0.05$ vs all countries except France; ‡$p < 0.05$ vs France and Germany; §$p < 0.05$ vs Italy and Spain.
PT, prothrombin time; INR, international normalized ratio.

Figure 2. Opinion of patients who were receiving medication for atrial fibrillation regarding the possibility of a lack of requirement for dose adaptation: (a) overall opinion; (b) most cited reasons for a positive opinion; (c) most cited reasons for a negative opinion



*$p < 0.05$ vs all countries except Spain; †$p < 0.05$ vs Italy, Spain and UK; ‡$p < 0.05$ vs France and Germany; §$p < 0.05$ vs Germany.

Figure 3. Preference for anticoagulant dosing regimen among all respondents receiving medication for atrial fibrillation



Most respondents expressed a preference for receiving their anticoagulation medication once daily

- Overall, 80.7% of respondents taking medication for AF expressed a preference for once-daily dosing (range 74.3–85.7%; Figure 3).
  - Of those expressing a preference for once-daily dosing, 19.3% (range 13.7–22.0%) declared that this made it easier to follow their physician's instructions for taking medication, and 16.7% (range 13.2–22.4%) stated that it was consistent with their existing habit of taking medication once daily.

Patients preferred a once-daily dosing regimen to a twice-daily regimen

Conclusions

- Most patients surveyed responded positively to the possibility of reduced coagulation monitoring and lack of requirement for dose adaptation associated with NOACs.
  - Many of those responding negatively cited their reason as a need to know their anticoagulation status, or the increased uncertainty about correct dosing, suggesting that patients may prefer regular interaction with, or reassurance from, healthcare professionals.

The EUPS-AF highlights the need to make decisions about medication following discussions with patients

- Although the choice of prescribed VKA differed significantly among the countries surveyed, this probably reflects long-standing national differences in VKA prescribing practice rather than patient preference.
- Most respondents expressed a preference for receiving their anticoagulation medication once daily.
  - A previous study has shown that patients with chronic cardiovascular diseases receiving medication twice or three times daily were 14.0% and 27.5%, respectively, less adherent to their treatment (weighted mean of taking, regimen and timing adherence) than patients taking their medication once daily.[2]
- The EUPS-AF confirms that there is an unmet need for NOACs that have a reduced requirement for anticoagulation monitoring compared with VKAs, that do not require dose adaptation and that can be administered once daily.

References

1. Schoen C *et al. Health Aff (Millwood)* 2008;28:w1–16.
2. Coleman CI *et al. Curr Med Res Opin* 2012;28:669–80.

Declaration of interest

WG declares no conflict of interest. AMSO and AS are employees of Daiichi Sankyo Europe GmbH. JLZ and AB have received speaker and advisory board honoraria from Daiichi Sankyo Europe GmbH.

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