

**EUROPEAN HEART HOUSE**

## **Anti-Thrombotic Therapy – Update 2016**

**Thursday 23 February – Saturday 25 February, 2017**

**Course Directors:**

Raffaele De Caterina (IT), Erik Grove (DK), Steen D. Kristensen (DK), Marco Zimarino (IT)

**Faculty:**

Giancarlo Agnelli (IT), Jean-Philippe Collet (FR), Kurt Huber (AU), David J. Moliterno (USA), Franz-Josef Neumann (GE), Giuseppe Patti (IT), Bianca Rocca (IT), Helmut Schühlen (GE), Robert F. Storey (UK)



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## **Warfarin or NOACs Lessons from real-life data in different countries**

**Giuseppe Patti  
Campus Bio-Medico University of Rome**




	Efficacy (CRTs)	Effectiveness (Real-world data)
<b>Objective</b>	Efficient and safe under ideal, highly controlled circumstances	Efficient and safe under usual circumstances
<b>Setting</b>	Relatively small set of pts over a short time period	Very large set of pts over a long time period
<b>Centers</b>	Highly dispersed	Localized
<b>Purpose</b>	Regulatory approval	Safety in populations
<b>Type of intervention</b>	Fixed, pre-determined regimen	Flexible regimens (considering doctor's and patient's choice)
<b>Subjects</b>	Homogeneous/highly selected	Heterogeneous/Any subjects
<b>Cost-efficiency evaluation</b>	No	Yes

Real world data on NOACs	
Confirm in usual care conditions the results obtained in CRTs	
Confirm safety results in different settings from CRTs	
No unexpected adverse effects	
Compliance in the uncontrolled usual care setting	
Evaluate safety concerns raised from CRTs	
Target patients and practice patterns in the usual care setting	
Real-world use of different NOACs according to risk profile	
Provide information on long-term outcome and cost-effectiveness	

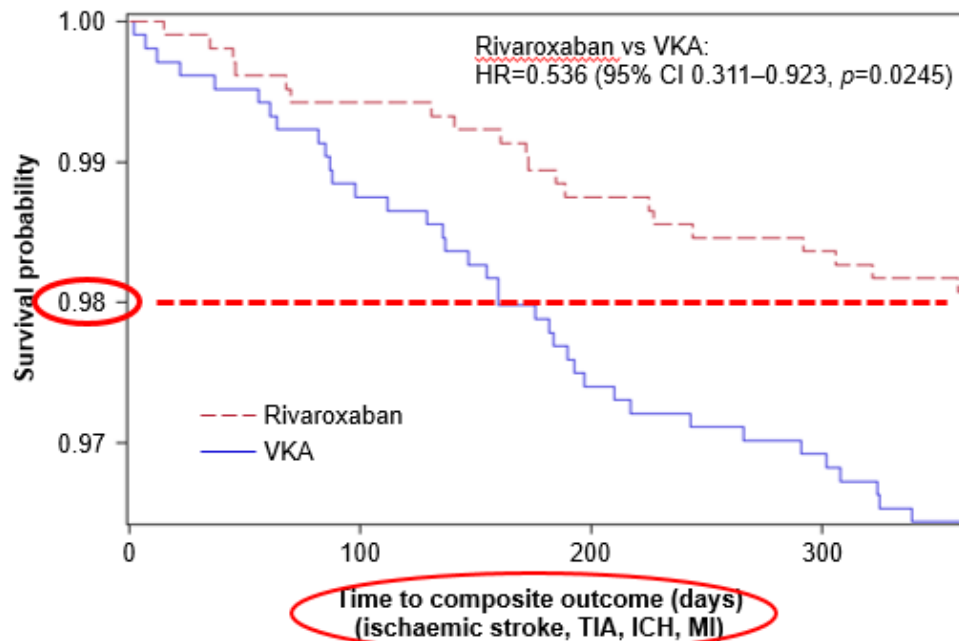
# ARISTOTLE vs Real world data




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	N	OR	95% CI	P	% Api	NNT
ARISTOTLE	18,201	0.69	0.60-0.80	<0.001	2.1%	100
Lip et al.	29,338	0.52	0.30-0.89	0.018	1.4%	48
ARISTOTLE	18,201	0.71	0.68-0.75	<0.001	18%	13
Lin et al.	35,757	0.75	0.63-0.88	<0.05	7.2%	22
ARISTOTLE	18,201	0.79	0.65-0.95	0.01		
Amin et al.	5,573	0.74	0.68-0.81	<0.001		

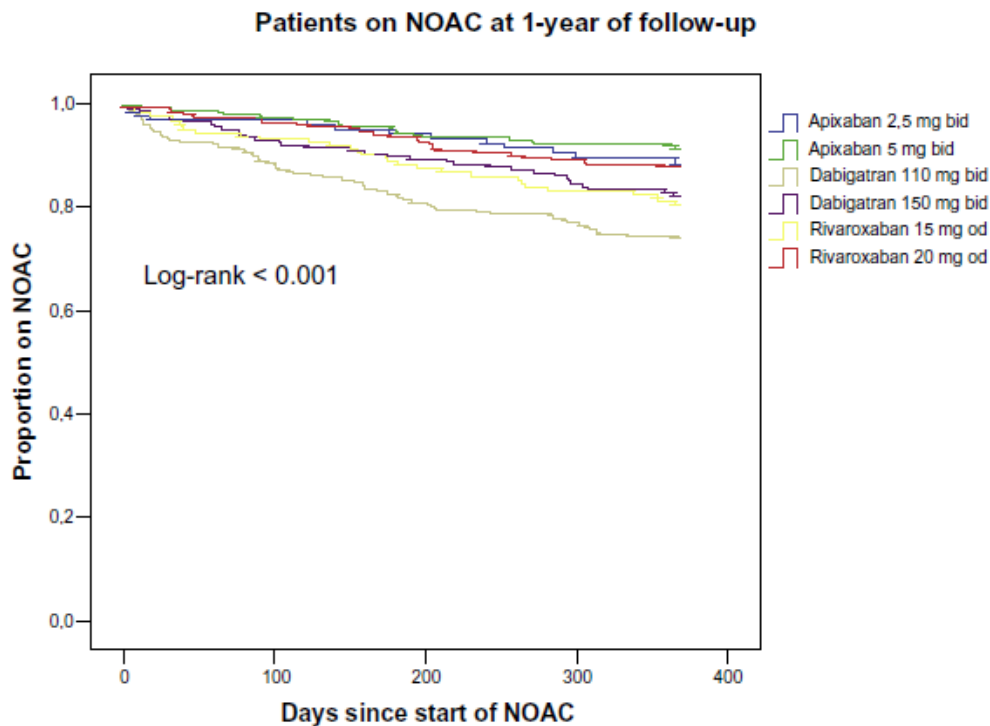
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Kaplan–Meier estimates for time to composite outcome







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# NOACs adherence in an Italian real-world setting (N=1,305 AF patients)





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# Efficacy and Safety of Dabigatran Etexilate and Warfarin in “Real-World” Patients With Atrial Fibrillation

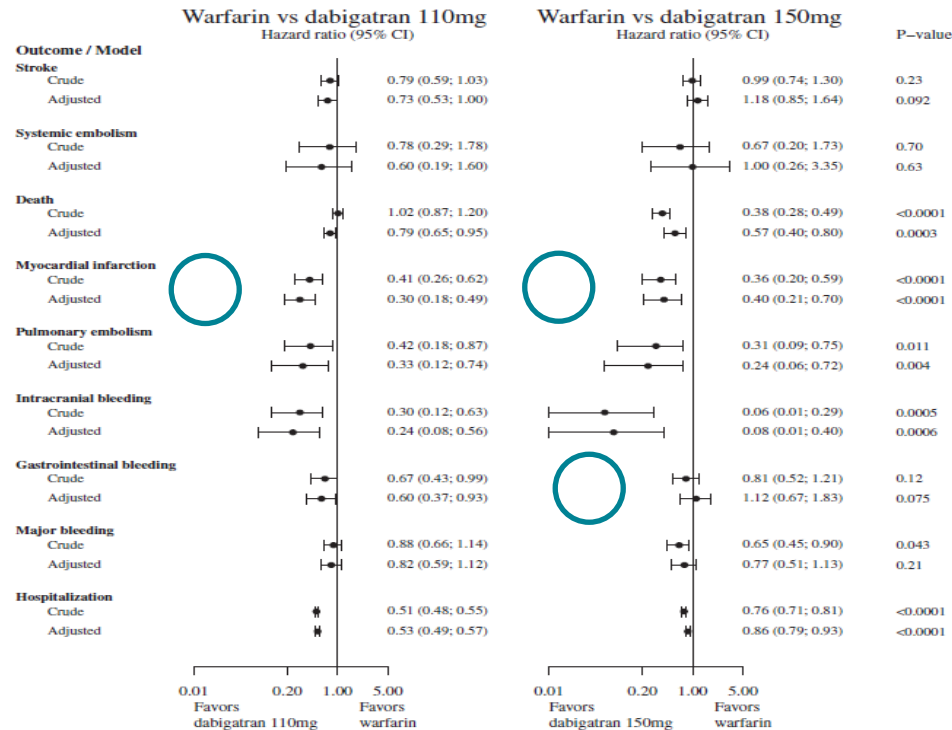
A Prospective Nationwide Cohort Study







Torben Bjerregaard Larsen, MD, PhD,\*† Lars Hvilsted Rasmussen, MD, PhD,†  
Flemming Skjøth, MSc, PhD,\* Karen Margrete Due, MSc,\* Torbjörn Callréus, MD, PhD,‡  
Mary Rosenzweig, MSc,‡ Gregory Y. H. Lip, MD†§

Aalborg and Copenhagen, Denmark; and Birmingham, United Kingdom

Larsen TB et al. JACC Vol. 61, No. 22, 2013 June 4, 2013:2264

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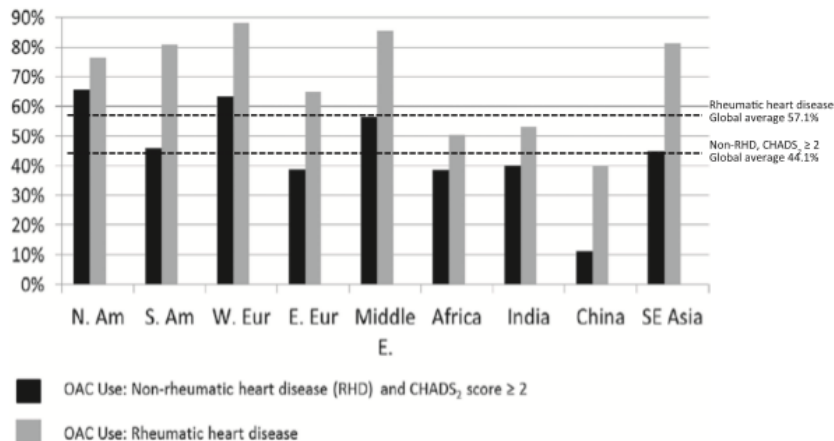


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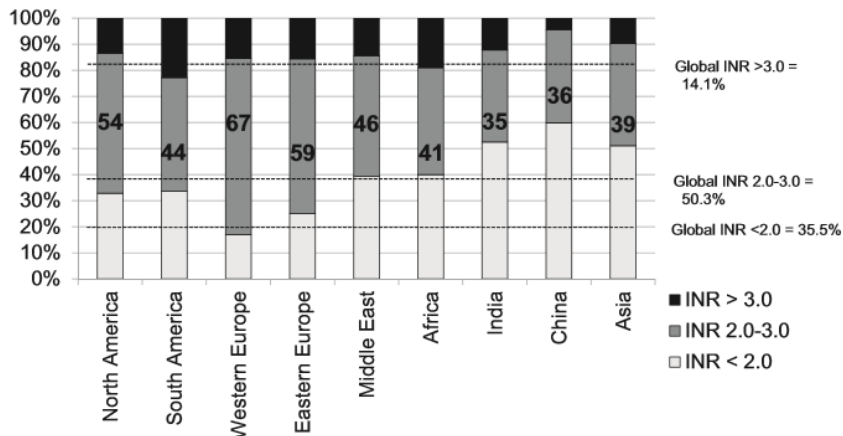
# The Prospective RE-LY Atrial Fibrillation Registry (164 sites in 46 countries; N=15,400)

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## Prevalence of AF patients receiving OAC at ED presentation

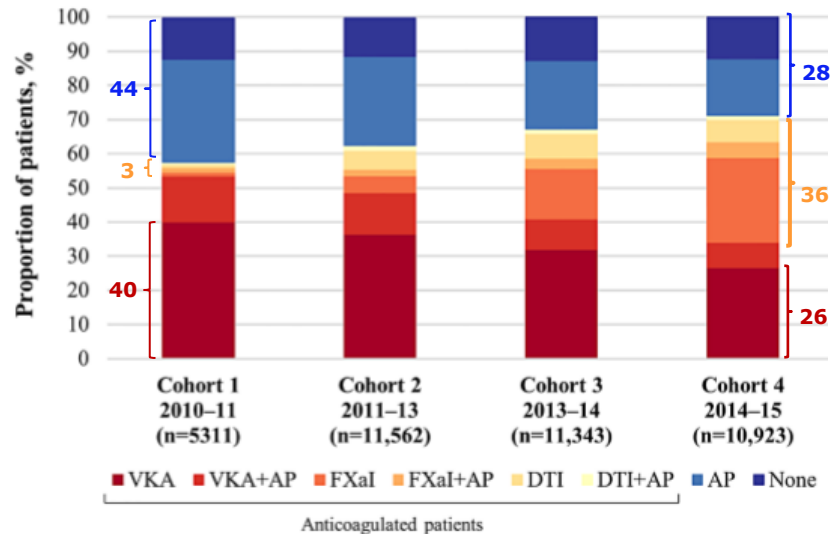


## INR control before ED presentation



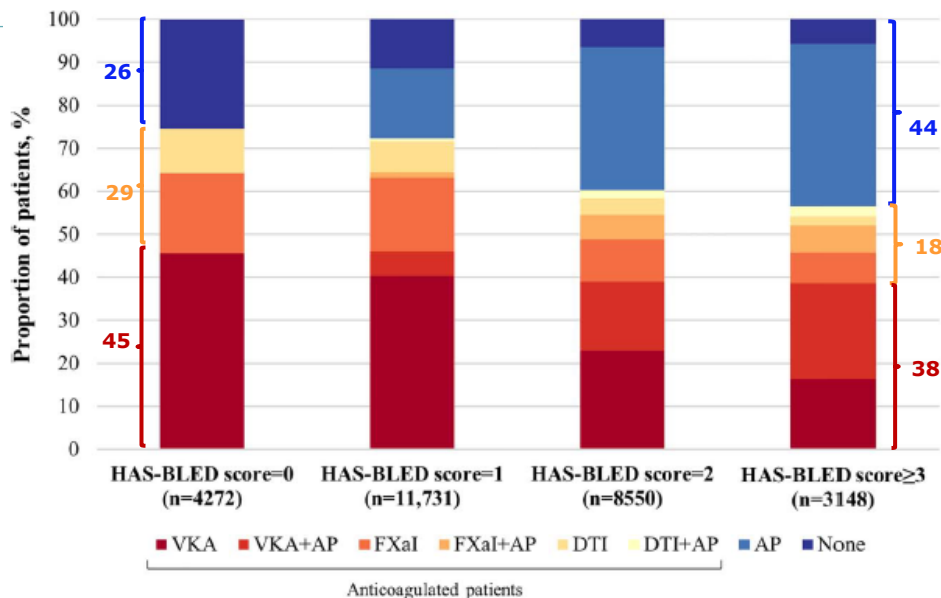
# Antithrombotic strategies before and after NOACs diffusion – The GARFIELD AF Registry

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# Antithrombotic strategies according to bleeding risk The GARFIELD AF Registry

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**Median CHADS-VASc score of NOAC pts: 4 in C1 .....3 in C4!**  
**Median HAS-BLED score of NOAC pts: 2 in C1 .....1 in C4!**

**With NOACs diffusion there was a great proportion of patients at low TE risk (score 0-1) treated with these agents**

# Real world NOACs vs LAA closure

**Xantus (Rivaroxaban)**

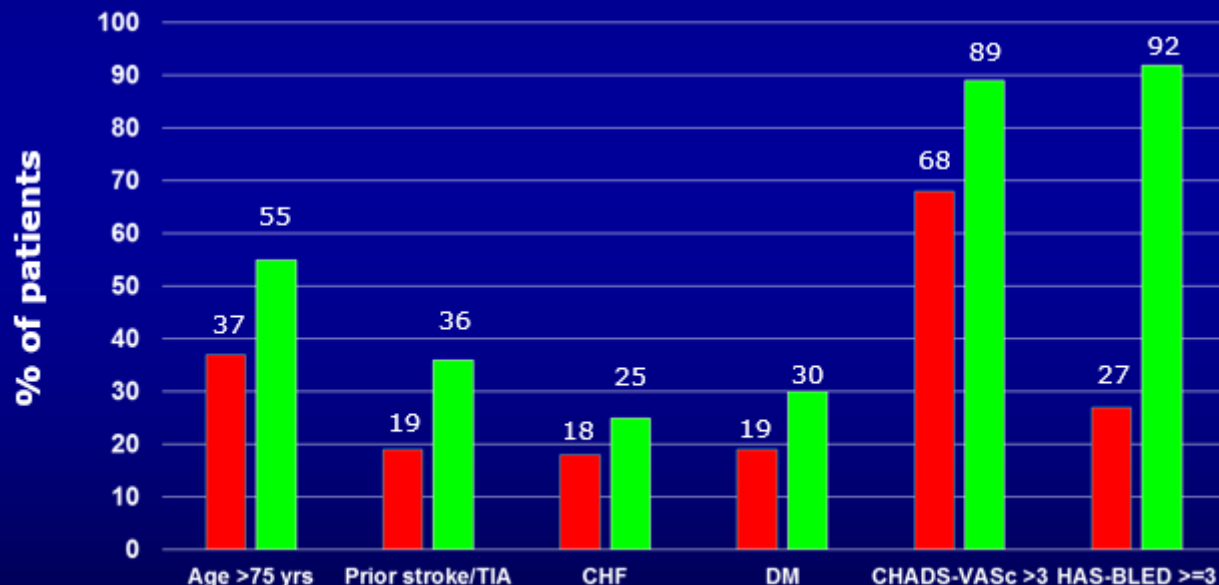
Age 71±10 yrs

CHADS-VASc 3.4±1.7

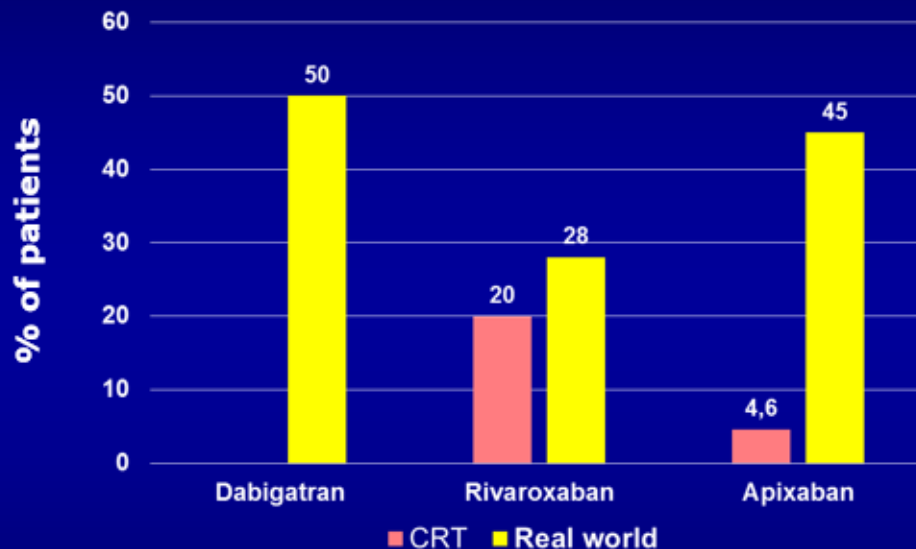
**Tzikas (ACP)**

Age 75±9 yrs

CHADS-VASc 4.4±1.6



## Prevalence of NOACs use at low doses in CRTs and European real world registries



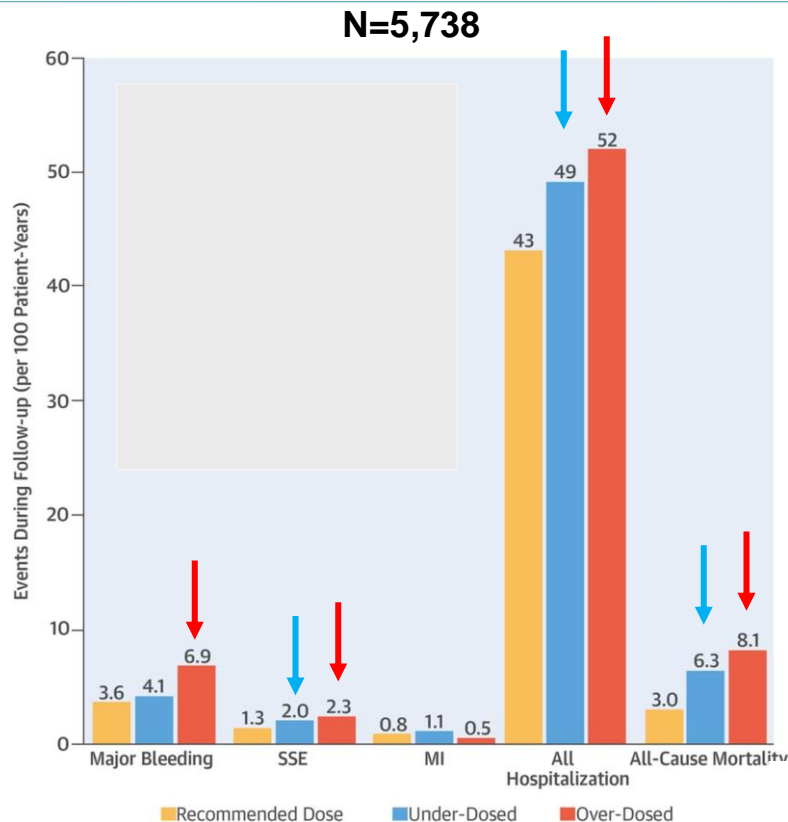
**ROCKET:** dose reduction of Rivaroxaban from 20 mg to 15 mg if Cr Cl 30-49 ml/min







**ARISTOTLE:** dose reduction from 5 to 2.5 mg if at least 2 of:  
age  $\geq 80$  years, Cr  $\geq 1.5$  mg/dL, weight  $\leq 60$  kg



# Off-Label Dosing of Non-Vitamin K Antagonist Oral Anticoagulants and Outcome The ORBIT-AF II Registry - J Am Coll Cardiol, December 2016

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## Risk profile of pts receiving different NOACs in the real world



Dellalozweig et al. Poster presentation at ESC Aug/Sept 2015; London, UK Poster/oral poster no. P6211

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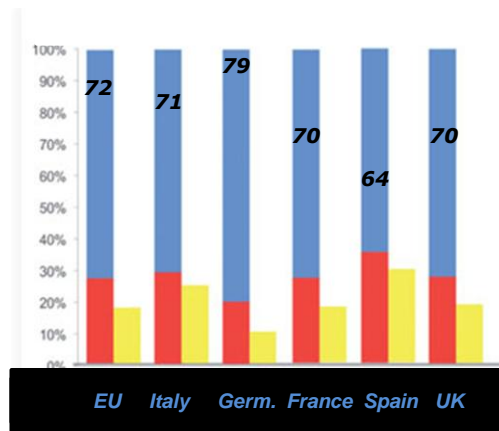
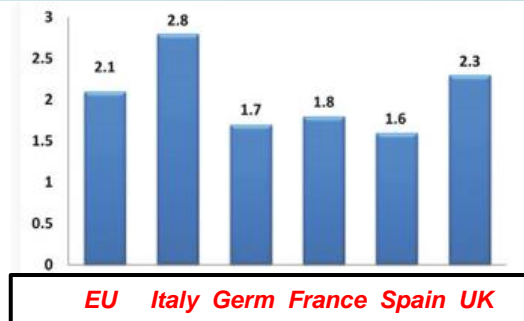


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# PREFER in AF Registry (N=7,243)

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	Total	France	Germany	Italy	Spain	UK
Vitamin K antagonists (VKAs)	78.0	86.0	79.1	71.4	80.0	75.1
Combination therapy (VKA + AP)	9.9	10.1	7.7	8.8	10.3	14.7
Novel oral anticoagulants (NOACs)	6.1	6.0	11.6	0.3	11.2	3.7
Antiplatelet agents (AP) monotherapy	22.1	16.9	17.2	27.0	18.7	30.7
No anticoagulants or antithrombotic therapy	6.5	4.1	5.0	10.4	5.7	6.5



Le Heuzey et al. Thromb Haemost 20014

[www.escardio.org](http://www.escardio.org)

INR adequate

INR suboptimal

INR unstable

Thrombosis  
ESC Working Group

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