AF AWARE Workshop



Ljubljana, 25 November 2010





Welcome & introductions

Dr Markus Wagner, President, SAFE



Our panel

- Professor Günter Breithardt World Heart Federation
- Leela Barham Independent Health Economist,
 Report author
- James Beeby Corporate Partnerships, The Stroke
 Alliance for Europe
- Graham Minton Director, Corporate Relations, World Heart Federation



Today's objectives

- Update on AF AWARE campaign activities to date
- Share findings from the AF in Europe: How AWARE are you? research
- Brainstorm ideas for taking the AF AWARE campaign forward
- Discuss effective research process



Agenda: Morning

Time	Topic	Speaker(s)
10.00	Welcome & Introductions	Dr Markus Wagner
10.10	Atrial Fibrillation (AF) – the growing burden in Europe	Prof. Günter Breithardt
10.30	Taking action – the AF AWARE campaign so far	Graham Minton & James Beeby
10.50	Coffee Break	
11.10	Atrial Fibrillation in Europe: How AWARE are you? Research findings	Leela Barham & J. Beeby
11.50	Audience Q&A	Facilitated by J. Beeby
12.10	Lunch	

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Agenda: Afternoon

Time	Topic	Speaker(s)
13.10	AF management in Europe: Filling the gaps Introduction to Workshops	Weber Shandwick
13.20	Break out into workshop groups	Workshop sessions - All
14.30	Coffee Break	
14.45	Workshop feedback session	Representatives from workshop groups
15.15	Summary of next steps	Dr Markus Wagner
15.30	Meeting Close	Dr Markus Wagner



A few housekeeping items

- Interactive day share your opinion
- Complete questionnaire and return to registration desk during morning coffee break
- Complete evaluation form and return to registration desk at the end of the day



Atrial Fibrillation (AF) – the growing burden in Europe

Professor Günter Breithardt World Heart Federation





AF AWARE – Member Workshop SAFE Conference 25 November 2010, Ljubljana, Slovenia



Westfälische Wilhelms-Universität Münster



Atrial Fibrillation (AF) – the growing burden in Europe

Prof. Dr. h.c. Günter Breithardt

Universitätsklinikum Münster Dept. of Cardiology and Angiology Atrial Fibrillation Network (AFNET) Münster / Germany

What is atrial fibrillation?

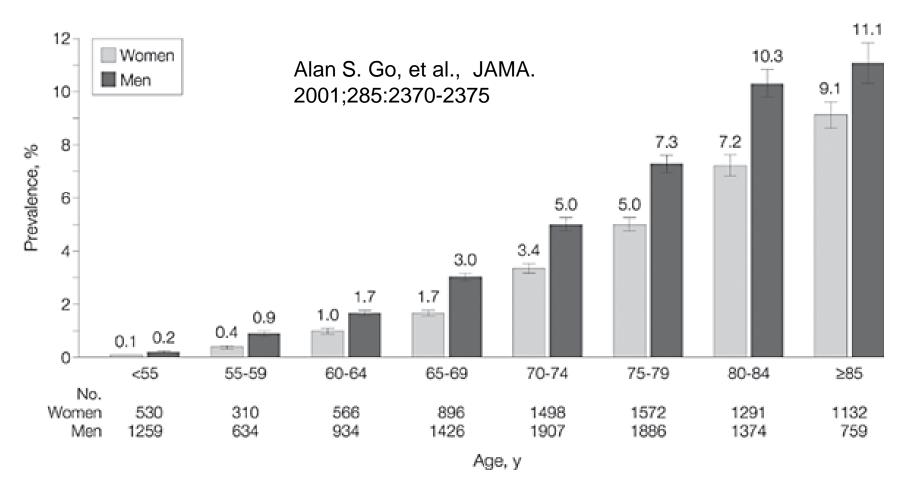
- In patients with atrial fibrillation, heart beats are completely irregular and often the heart rate is too fast or too slow
- Atrial fibrillation is the most common clinically relevant heart rhythm abnormality affecting people worldwide:¹⁻⁴
 - Over nine million people in the EU and the US alone suffer from atrial fibrillation
 - One in four people aged 40 years or older develop atrial fibrillation
 - The number of people with atrial fibrillation is expected to double by 2050

^{1.} Stewart S, Murphy N, Walker A, et al. Heart 2004; 90:286-92; 2. Fuster V, Rydén LE, Cannom DS, et al. Circulation 2006; 114:e257-e354; 3. Miyasaka Y, et al. Circulation 2006; 114:119-125; 4. Lloyd-Jones DM, Wang TJ, Leip EP, Larson MG, Levy D, Vasan RS, et al. Circulation 2004; 110:1042-6.



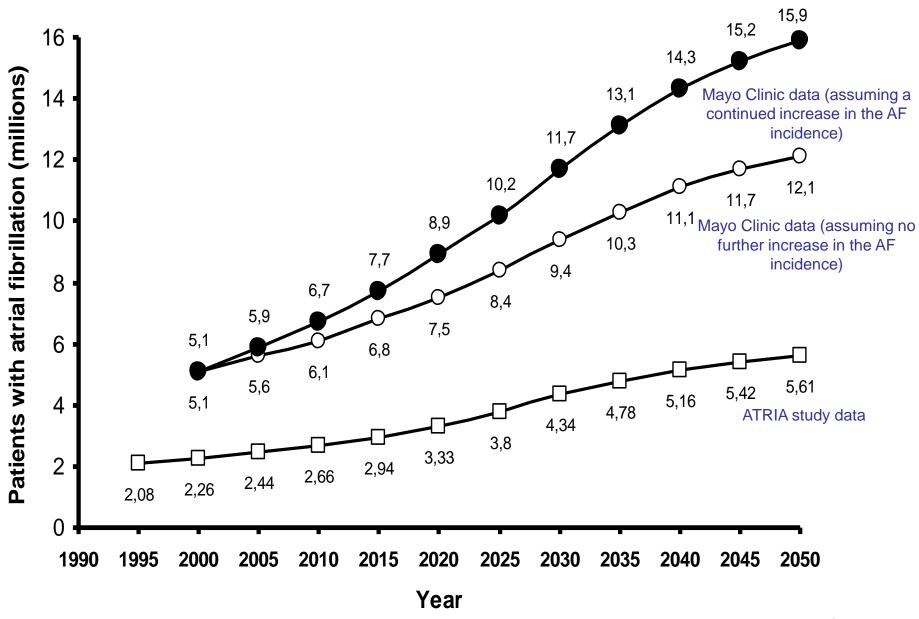


National Implications for Rhythm Management and Stroke Prevention: the AnTicoagulation and Risk Factors In Atrial Fibrillation (ATRIA) Study

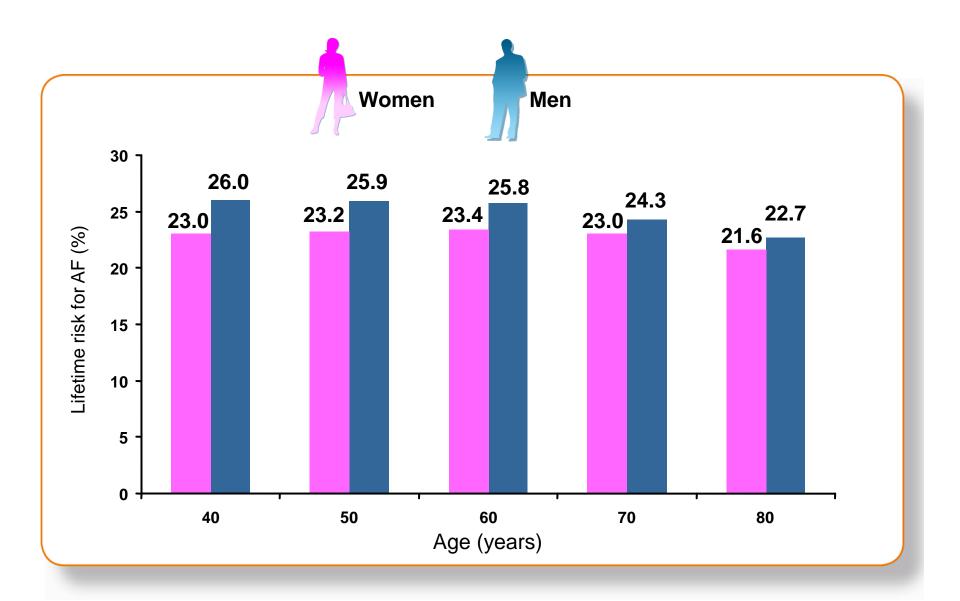


Prevalence of Diagnosed Atrial Fibrillation Stratified by Age and Sex

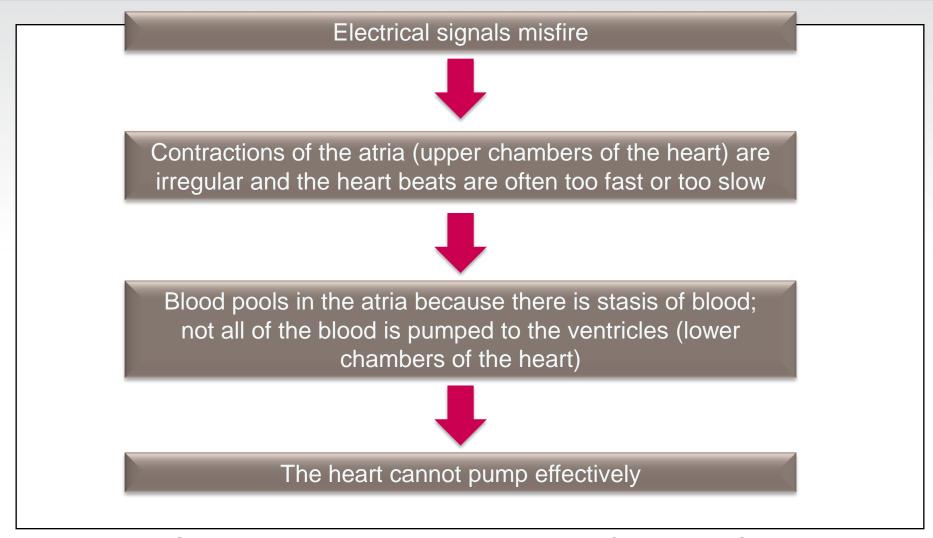
The AF epidemic



Lifetime risks for developing AF are 1 in 4



Why does atrial fibrillation occur?



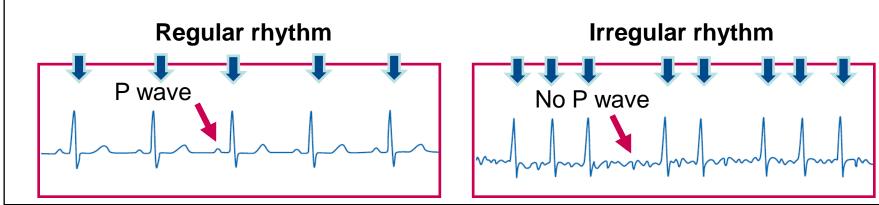
1. Atrial Fibrillation Fact Sheet, National Heart Blood and Lung Institute Diseases and Conditions Index, October 2009. Last viewed June 2010 at http://www.nhlbi.nih.gov/health/dci/Diseases/af/af_what.html; 2. Atrial Fibrillation Factsheet, Patient UK, March 2008. Last viewed June 2010 at http://www.patient.co.uk/health/Atrial-Fibrillation.htm

What causes atrial fibrillation?

- Whilst some cases of atrial fibrillation have no known cause, conditions and lifestyle factors known to lead to atrial fibrillation include:^{1,2}
 - Age
 - High blood pressure
 - Diabetes mellitus
 - Having an overactive thyroid gland
 - Heart failure
 - Drinking too much alcohol or binge drinking
- Atrial fibrillation is more common in people who have heart disease or heart-related conditions like heart failure^{2,3}

What are the symptoms of atrial fibrillation?

- Symptoms may be experienced on a regular basis, intermittently or not at all:^{1,2}
 - Fatigue, palpitations, dizziness, chest pains and breathlessness
- Many people with atrial fibrillation lack any symptoms: 1-3
 - ➤ More than half of episodes of atrial fibrillation are not felt by the patient
- Atrial fibrillation if present can be diagnosed using an electrocardiogram⁴



^{1.} http://www.nhlbi.nih.gov/health/dci/Diseases/af/af_what.html; **2.** http://www.patient.co.uk/health/Atrial-Fibrillation.htm; **3.** PAFAC and SOPAT trials **4.**Ashley EA & Niebauer J. Cardiology explained. *Remedica*: London 2004.

Asymptomatic atrial fibrillation

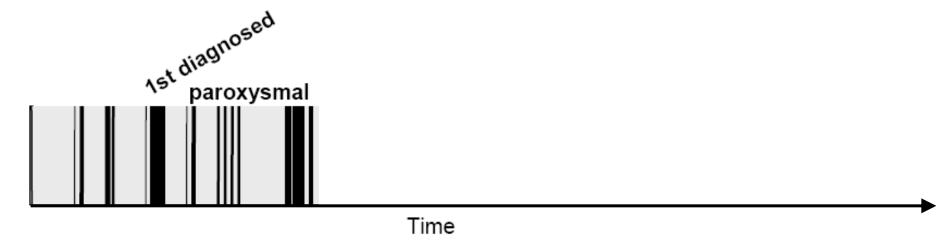


- Asymptomatic atrial fibrillation is a substantial problem for invidual health and for the health care system:
 - > it may cause stroke
 - it is frequent despite antiarrhythmic drug therapy or catheter or surgical ablation
 - > (it may cause cognitive dysfunction and dementia)



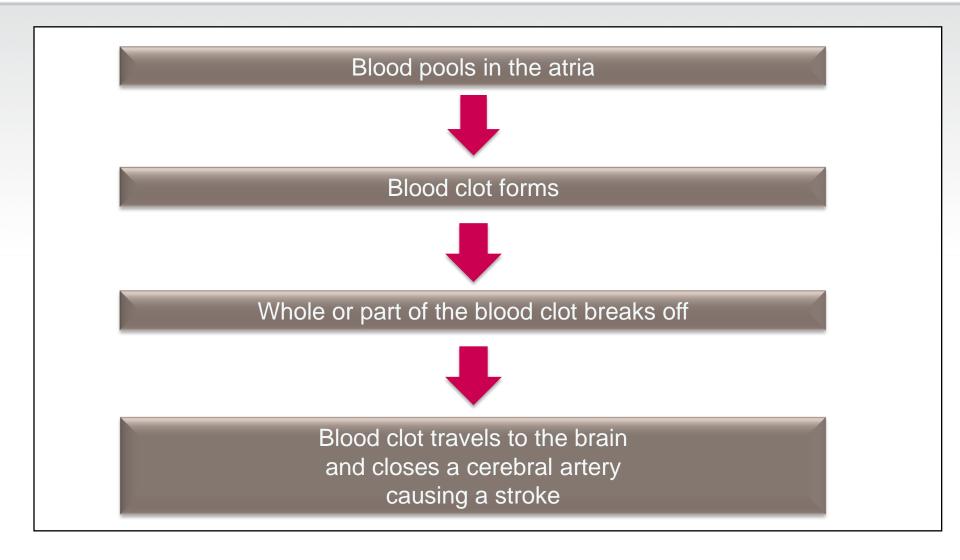
Natural time course of AF





10% recurrent AF in first year, 5% per annum thereafter mortality 2 – 3 fold increased in AF (1.5 – 4 % per year) Recurrences of paroxysmal AF not randomly distributed marked reduction in quality of life

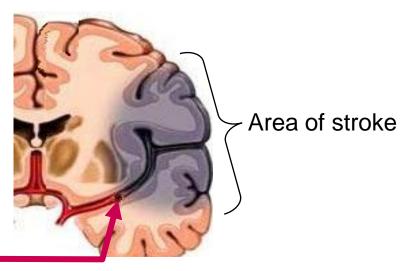
How does atrial fibrillation lead to stroke?



1. Atlas of Heart Disease and Stroke, World Health Organization, September 2004. Last viewed June 2010 at http://www.who.int/cardiovascular_diseases/en/cvd_atlas_15_burden_stroke.pdf

What is a stroke?

- A stroke is the brain equivalent of a heart attack (i.e. a myocardial infarction). Blood must flow to and through the brain for it to work properly
- If this flow is blocked by a blood clot, the brain loses its energy and oxygen supply, causing brain damage that can lead to disability or death¹



Artery occlusion by blood clot

1. World Health Organization, Atlas of Heart Disease and Stroke, http://www.who.int/cardiovascular_diseases/en/cvd_atlas_15_burden_stroke.pdf.

How do you measure the risk of stroke?

- CHADS₂-Score: a simple index that is widely used to assess the risk of stroke of a patient with atrial fibrillation. It can be used to guide antithrombotic therapy
 - Congestive heart failure history 1 point
 - Hypertension history 1 point
 - Age > 75 years -1 point
 - Diabetes mellitus history -1 point
 - Stroke or TIA history 2 points
- The higher your CHADS₂-Score, the higher your risk of having a stroke
- This score has been expanded in 2010 by additional factors: female gender, age between 65 and 74 years, presence of vascular disease: CHA2DS2VASc

What is the link between atrial fibrillation and stroke?

- People with atrial fibrillation are five times more likely to have a stroke:¹
 - 20-30% of strokes are related to atrial fibrillation²

Up to three million people worldwide have an atrial fibrillation-related stroke every year — that is one person every 12 seconds!³⁻⁵

How is atrial fibrillation treated?

- Antithrombotic therapy:
 - Antiplatelet and anticoagulant medications (blood thinning therapies)
- Rate control:
 - Achieving 'normal' heart rates
- Rhythm control may be attempted in selected patients:
 - Cardioversion: using electricity
 - Cardioversion: using antiarrhythmic drugs
 - Catheter or surgical ablation(s)
- Major issues at present:
 - Early management by rhythm control therapy?
 - Antiarrhythmic drugs versus catheter ablation?
 - Better prevention of stroke by novel drugs: health care costs, benefits?

Why is stroke prevention in atrial fibrillation sub-optimally managed?

- Only half of diagnosed patients with atrial fibrillation at risk of stroke receive anticoagulation therapy: 1-4*
 - ➤ Vitamin K antagonists (VKAs) are highly effective when a patient's blood clotting value is maintained within the narrow therapeutic INR range of 2.0-3.0
 - ➤ Fewer than half of patients on VKAs are controlled within this narrow therapeutic range
 - Patients with a very high risk of stroke (e.g. elderly patients with co-morbidities) are withheld oral anticoagulation due to fear of the risk of bleeding

^{*} e.g. warfarin, a vitamine K antagonist

^{1.} Dulli DA et al. Neuroepidemiology 2003;22:118–23; 2. Hylek EM, DAntonio J, Evans-Molina C, et al. Stroke 2006; 37:1075-80;

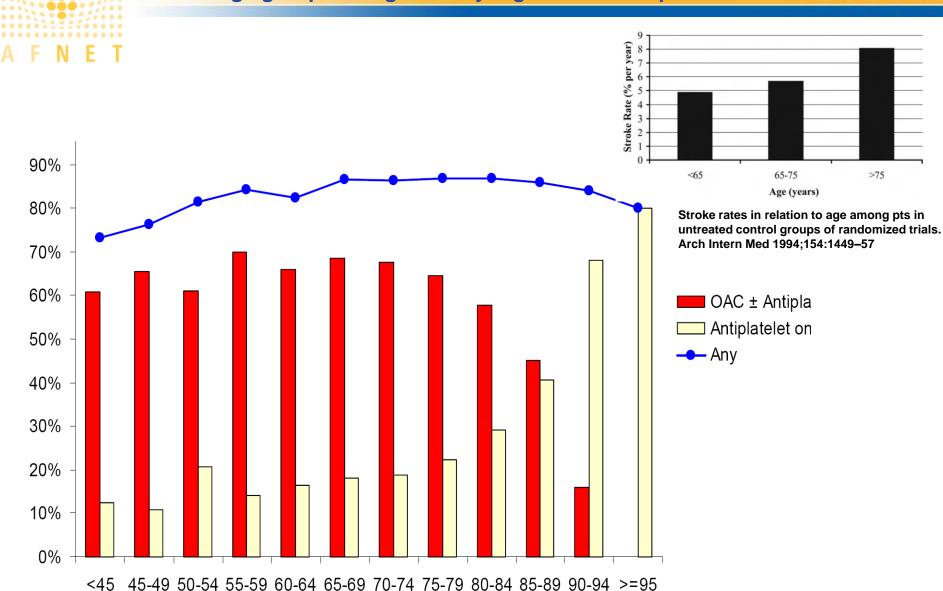
^{3.} Hart GR, et al. Ann Intern Med. 2007; 146:857-867; **4.** Samsa GP, Matchar DB, Goldstein LB, et al. Arch Intern Med 2000;160:967-7.

Δ F N F T

AFNET



Use of anticoagulation and antiplatelet therapy in the different age groups of high or very high stroke risk pts



Ohne Kardioversions- und Ablationspatienten

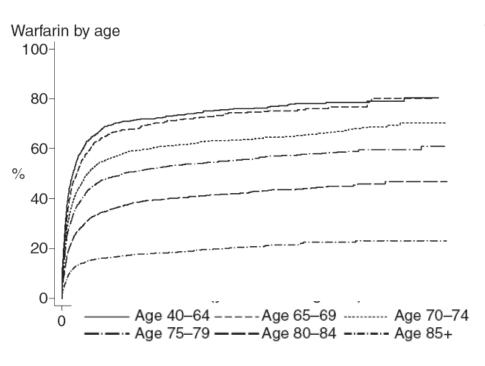
Näbauer, Meinertz, et al.

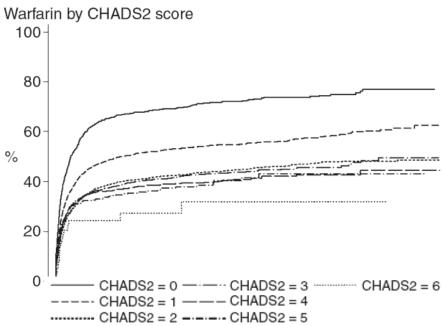


Initiation and persistence of warfarin or aspirin in pts with chronic afib in general practice: do the appropriate pts receive stroke prophylaxis? (U.K.)



Proportion of patients initiating warfarin or aspirin stratified by age and CHADS2 score.

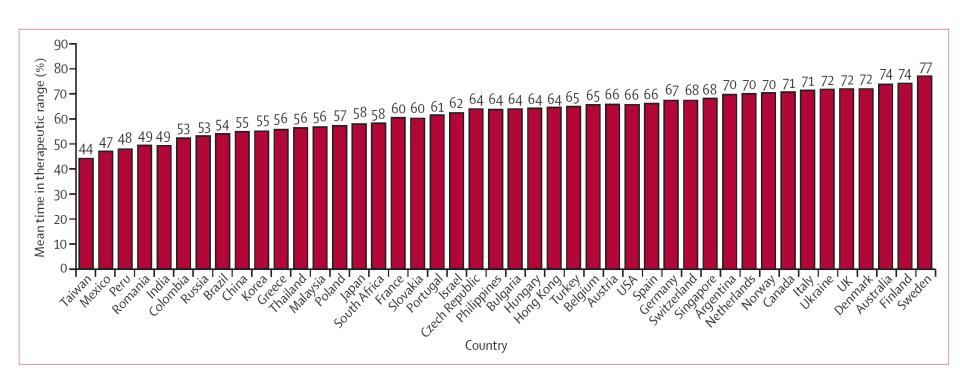






Country distribution of mean time in therapeutic range in the RE-LY trial





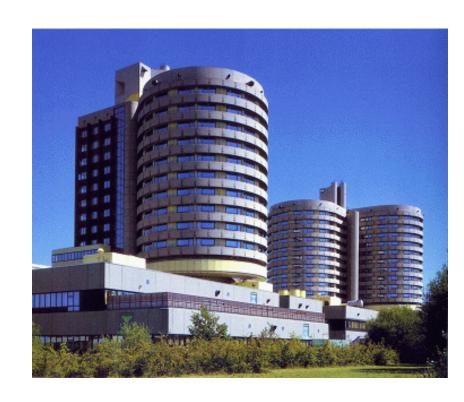
Why is awareness of atrial fibrillation low?

- Many people are unaware of the increased risk and potential life changing consequences of having an atrial fibrillation-related stroke, many of which can be prevented:¹
 - ➤ In the AF AWARE international survey, 46% of physicians agreed that their patients would not be able to explain atrial fibrillation
 - ➤ A quarter of physicians thought atrial fibrillation was too complex to explain during a clinic visit or that they did not have enough time

There is a need for increased awareness and understanding







Thank you very much for your attention

Taking action – the AF AWARE campaign so far

Graham Minton & James Beeby



The World Heart Federation



- Mission statement: "The World Heart Federation unites its members and leads the global fight against heart disease and stroke, with a focus on low and middle income countries."
- Community of nearly 200 member organizations societies of cardiology and heart health charities
- The World Heart Federation advocates for fair and equal cardiovascular health policies, generates and exchanges ideas, shares best practice and advances scientific knowledge to tackle the world's number one killer



The Stroke Alliance for Europe



- Mission statement: "We work towards all patients in Europe with stroke having rights of access to a continuum of care. From prevention and risk identification, through emergency response to organised stroke units in acute phase, to appropriate rehabilitation and secondary prevention measures by 2015."
- 22 members in 17 countries across Europe
- Current role sharing best practice and developing patient groups across Europe
- Future aspirations centralised lobbying, and greater building of alliances at an EU level

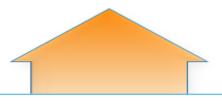


What is AF AWARE?

 AF AWARE (Atrial Fibrillation AWareness And Risk Education) is a campaign dedicated to gaining greater recognition of atrial fibrillation (AF) as a major international public health concern through exposing current misperceptions of the condition and focusing attention on the realities of the disease



We aim to move perception to reality



AF REALITY

AF is a severe CV disease within the CV continuum

AF has direct morbidity and mortality impact

Underestimated

AF PERCEPTION

An isolated low risk disease requiring symptom management and stroke prevention





Campaign goals

- Raise awareness of AF and its links to stroke and other cardiovascular complications
- Improve prevention, diagnosis and optimal management of AF
- Highlight the impact that AF can have on patient quality of life
- Illustrate the socio-economic burden associated with AF
- Educate healthcare professionals, patients, policy makers and the adult population on the management of AF



Campaign launch

- Close the Gap global survey in 11 countries demonstrated lack of awareness and education of AF amongst patients and physicians
- Call to action launched at ESC 2009





Campaign toolkit for local roll-out



All available on the World Heart Federation website



Europace Article Published April 30th 2010

- Article published on the results of the 'Close the Gap' survey
- Given media support from World Heart Federation
- Good media pick up with 47 million audience impressions and featured on 260 sites





World Congress of Cardiology - Beijing

- 'Members Pack' created including all existing materials, with key elements in Chinese
- Promoted at the World Heart Federation members meeting
- Prominent panel and display on the World Heart Federation booth







World Congress of Cardiology - Beijing

- Press release and media outreach in Asia-Pacific around the results of the 'Close the Gap' survey
- One to one interviews conducted by World Heart Federation Senior Science Officer and Dr. Zhang
- The result: 59 articles including front page of 'Health News' and articles in 'Beijing daily', 'Reference News' and 'Shanghai Evening Post' with readership of over 9.6 million





AF in Europe: How AWARE are you?

- Report commissioned by Stroke Alliance for Europe and World Heart Federation to:
 - Assess and evaluate AF management situation in Europe
 - Assess accessibility and content of patient information in Europe
 - Evaluate incidence and prevalence of AF in Europe
 - Estimate economic burden of AF in Europe
- Report launched to pan-European media earlier this week at the time of the EuropeAF conference





Coffee break



Atrial Fibrillation in Europe: How AWARE are you? Research Findings

Leela Barham & James Beeby



OUTLINE

- Study objectives
- Study methodology
- Findings
- Areas for potential future research



Study objective

- Against a background of concern of a lack of awareness of AF and a lack of comparable information and on data across Europe...
- ...the objective was to assess what is currently known about each of these across Europe and Russia



Study methodology

- Rapid evidence review, bringing together English language literature published between 2005 and 2010
- Email survey of SAFE and the World Heart Federation member organisations – valuable input
- A starting point with scope to build up a clearer picture over time



Incidence and prevalence





Incidence and prevalence

- Basic numbers missing for many countries...
- ...complexities from this condition; 'silent' cases
- Expectation of rise in cases over time
- Disease registries can provide answers but are few and far between across Europe



Healthcare system response to AF

- AF can be diagnosed and managed by: opportunistic screening, ECGs, cardioversion to return the heart to normal rhythm and anticoagulation to reduce the risk of blood clots which can cause stroke
- Management differs according to the type of AF and according to the specific patients' characteristics such as the presence of comorbidities
- Range of professionals involved: nurses, GPs, specialists
- Variety of treatment options but newer treatments (e.g. dronedarone) may not be available or unclear if available



Health care professionals involved in diagnosis and management

Country	Belgium	Finland	Germany	Lithuania	Norway	Russia	Slovenia	UK
Diagnosis								
GP	?	~	~	~	~	~	~	~
Neurologist	?	~			~		~	
Internist	?	~		~	~	~	~	
Cardiologist	?	~	~	~	~	~	~	
Management								
GP	?		~	~	~	~	~	~
Neurologist	?							
Internist	?	~		~	~		~	
Cardiologist	?	~	~	~	~	~	~	~
Nurse	?	~						

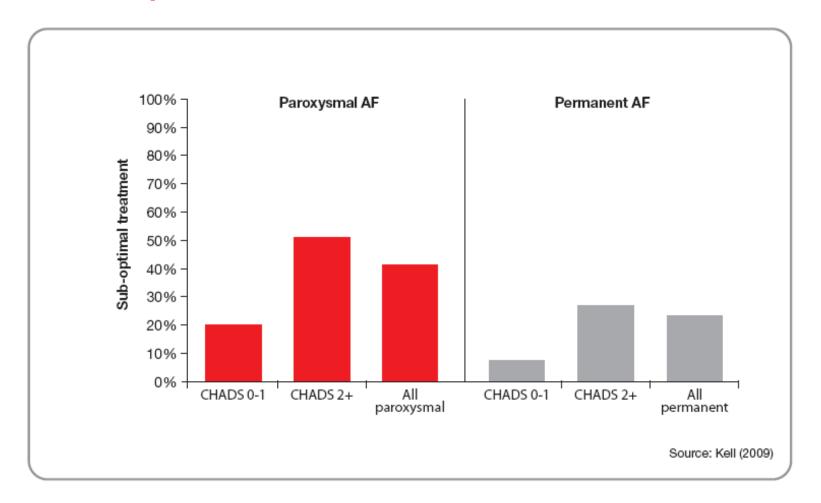


Availability of treatments

Country	Belgium	Finland	Germany	Lithuania	Norway	Russia	Slovenia	UK
Pharmaceuticals								
Control heart rate								
Beta-blocker (for example, atenolol, bisoprolol, metoprolol)	V	~		~	~	~	~	~
Calcium-channel blocker (verapamil or diltiazem)	?	~	?	~	~	~	~	~
Digoxin	?	~	?	~	~	~	~	~
Amiodarone	?	~	?	~	~	~	~	~
Medicine to control heart rhythm								
Beta-blocker (for example, atenolol, bisoprolol, metoprolol)	V	~	?	~	~	~	~	~
Amiodarone	?	~	?	~	~	~	~	~
Class 1c agent (flecainide, propafenone)	?	~	?	~	V	~	~	~
Sotalol	?	~	?	×	~	~	~	~
Medicine to prevent blood clots								
Warfarin/phenprocoumon or Vitamin K-antagonists in general	?	~	?	V	~	~	~	~
Heparin	?	~	?	~	~	~	~	~
Aspirin	~	~	?	~	~	~	~	~
Other								
Dronedarone	?	~	~	×	~	~	Х	?



Sub optimal treatment





Healthcare system response to AF

- Range of guidelines exist:
 - National, e.g. National Institute for Health and Clinical Excellence guidelines for the national health service (NHS) in England and Wales
 - European, e.g. European Society for Cardiology guidelines
- Adherence to guidelines is variable; both over use and under use of oral anticoagulants and a lack of tailoring of management to specific patients' characteristics
- No single country appears better or worse in their adherence to guidelines and there is likely to be scope for improvement across many countries
- Moving practice closer to guidelines could improve patient outcomes by reducing the risk of mortality and avoiding stroke....
- ...would also bring benefits to the health care system by reducing the demand for relatively expensive hospitalisations. This presents a missed opportunity to benefit both patients and the healthcare system



Patient information

- Variety of information available to patients:
 - leaflets
 - websites
 - telephone helpline (UK)
- Survey respondents not convinced that what is available is sufficient to meet the needs of patients, enabling them to be partners in treatment decisions with their clinician
- Gap in understanding patient preferences, which links back to adherence to guidelines for management

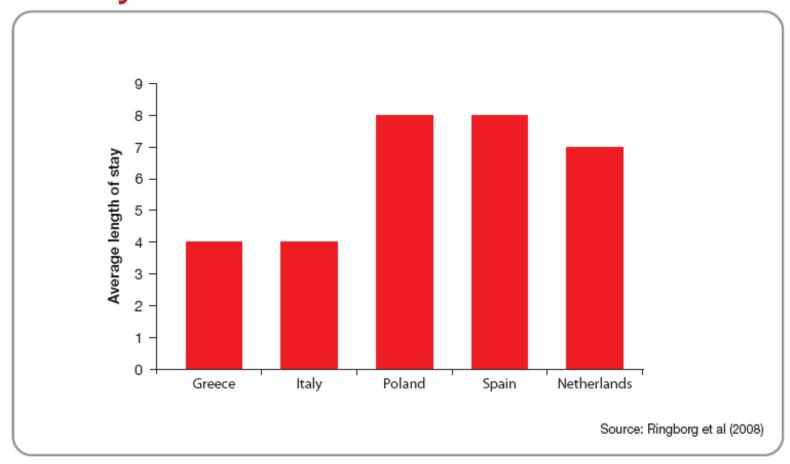


Economic burden



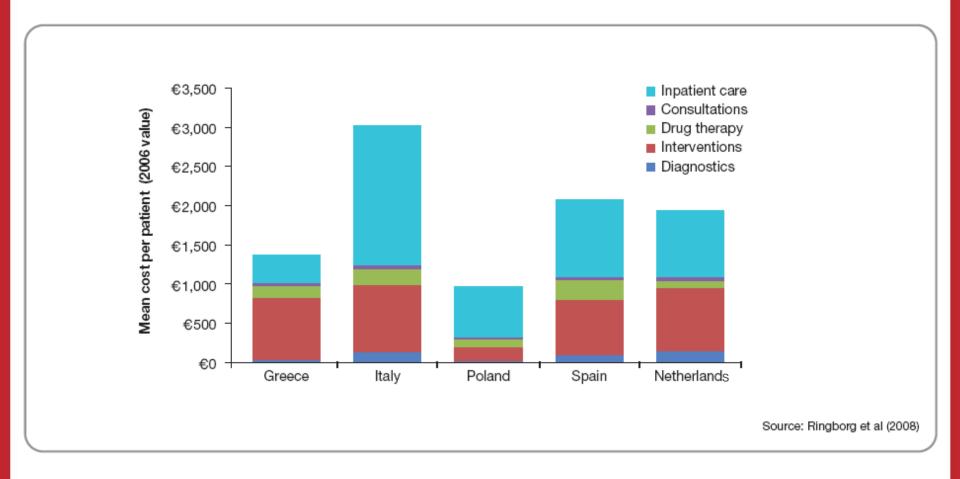


Economic burden – health care activity





Types of health care costs





Economic burden – health care costs

Country	Direct health care cost	Source	
France	€3,027 average per patient per year	Le Heuzey et al 2004	
Germany	AF related strokes cost more than non-AF related strokes; on average €11,799 vs €8,817per patient	Brüggenjürgen, Rossnagel, Roll et al 2007	
Germany	€680m in total in 2006	Survey respondent ¹	
Greece	€1,373 average per patient per year	Ringborg et al (2008)	
Italy	€3,019 average per patient per year	Ringborg et al (2008)	
Netherlands	€1,936 average per patient per year	Ringborg et al (2008)	
Poland	€971 average per patient per year	Ringborg et al (2008)	
Spain	€2,073 average per patient per year	Ringborg et al (2008)	
Sweden	AF patients had on average €818 higher inpatient costs over 3 years than non-AF patients (€10,192 vs. €9,374)	Ghatnekar and Glader 2008	
UK	AF has been estimated to cost the UK to be £459 million (~€655 million) in 2000	Stewart et al 2004	



Economic burden

- The 'right' level of expenditure in the health care system is difficult to determine
- Evidence suggests that achieving International Normalised Ratio (INR) for patients on warfarin in Sweden could lead to later cost offsets in the health care system by avoiding strokes
- A similar value for money argument has also been put forward in the UK, where opportunistic screening of primary care patients can cost in the order of £200 per newly treated patient, but leads to fewer strokes, and hence reduced demand for relatively more expensive stroke care



Economic burden – indirect cost

Country	Indirect cost	Source
Germany	€3,125 average per patient per year	Brüggenjürgen, Rossnagel, Roll et al 2007
Greece	€135 average per patient per year	Ringborg et al (2008)
Italy	€3,225 average per patient per year	Ringborg et al (2008)
Netherlands	€391 average per patient per year	Ringborg et al (2008)
Poland	€39 average per patient per year	Ringborg et al (2008)
Spain	€242 average per patient per year	Ringborg et al (2008)



We know.....

- AF is increasingly common, affecting up to 2 per cent of the general population
- The number of people with AF is set to grow over time, perhaps even doubling in the next 50 years
- AF prevalence is likely to be underestimated because it can be silent
- AF is a complex disease to diagnose and manage with a need to tailor the management according to patients' characteristics
- There are missed opportunities to more successfully manage AF by adhering to guidelines which can contribute to better outcomes for patients, and reduce demand on health care systems
- Patient information is available but isn't sufficient, a concern shared by patient organisations and clinicians
- AF results in a substantial cost of illness because it uses significant resources
 across primary and secondary care. In particular hospitalisations are expensive,
 and this is key driver of the costs of AF. Appropriate management, particularly the
 use of medicines can lead to reduced demand for expensive hospital care
- AF results in substantial loss of work



...but we need to know more

- There is a lack of country estimates of incidence and prevalence of AF
 - This implies that there may be scope for greater understanding of the extent of AF within countries. Perhaps the lack of country level estimates contributes to the concern expressed by SAFE and the World Heart Federation that there is a lack of awareness of AF. It is also likely to hinder effective planning within the health care system to provide treatment and management for those with AF
- Registries are not routinely available but more are being planned
 - This should help meet some informational gaps
- There are guidelines for management but there is variation in adherence – the reasons are not fully known
 - This implies a need for more in-depth research to explore the key barriers and enablers to move closer to meeting these guidelines in practice.
 Promising solutions include more education for clinicians and providing information to patients



...and there are promising options to explore for the future

- Updating the available costs of AF
 - This would be useful to inform planning and resourcing in the future
- Draw upon the estimates of the cost of stroke and apportion costs to AF
 - This would be useful to highlight the burden where it is currently opaque
- Explore the potential to extrapolate based upon available data to countries where no data exists
- Build on the momentum seen for disease registries and use them to collect as much information as is both useful and proportionate
- Explore reasons for lack of adherence to guidelines with clinicians and patients
- Work with patient organisations to identify the best approaches to fill the information gaps for patients
- Work with providers of clinical training to assess the appropriate content and frequency of training on AF

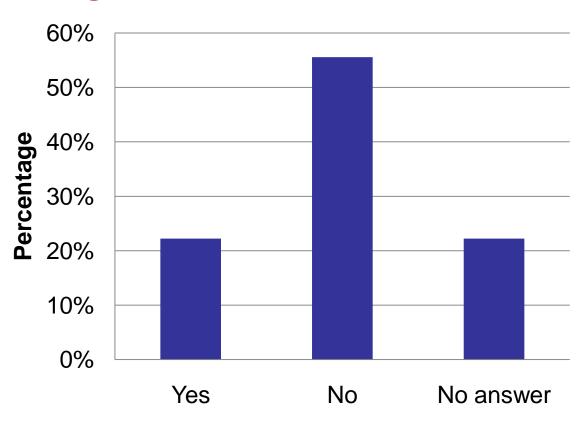


Audience Q&A

Facilitated by James Beeby

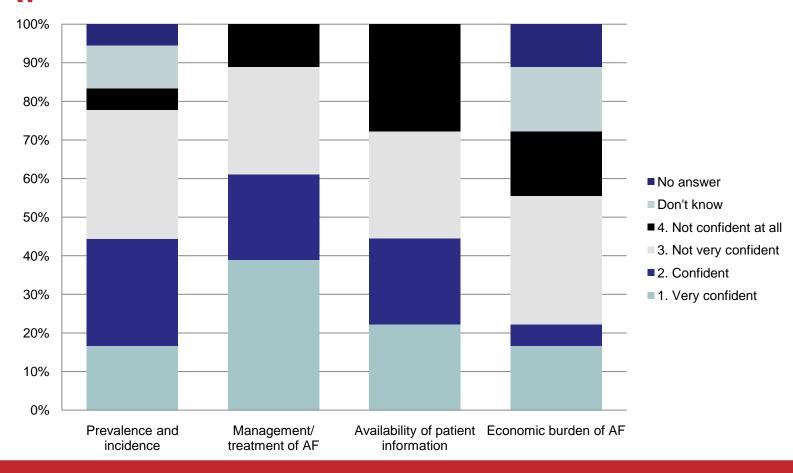


Is AF the key or main area of focus for your organization?



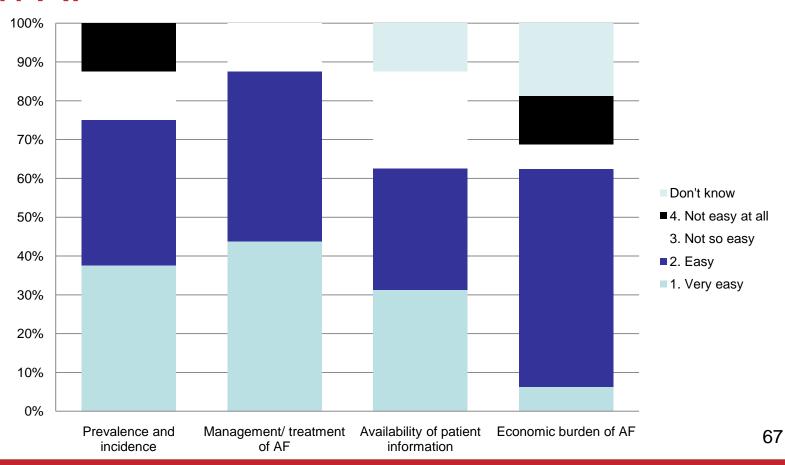


Confidence re in-house expertise on AF





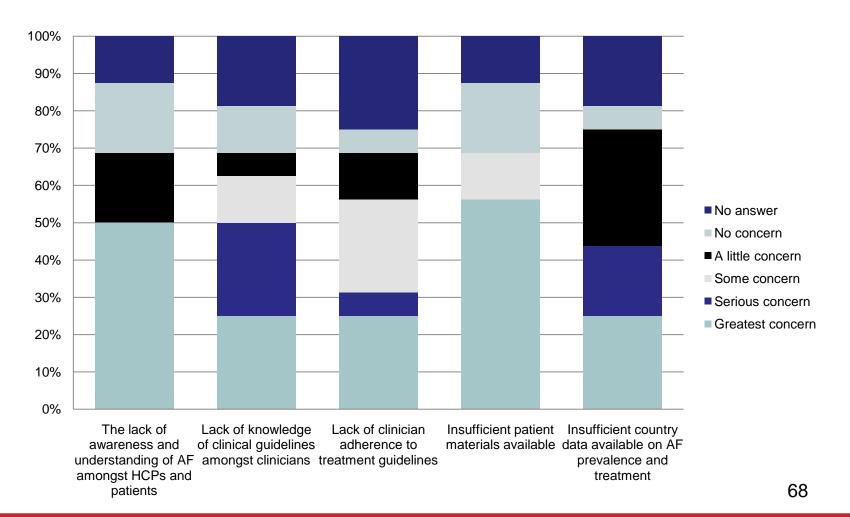
Member access to external expertise on AF





AF AWARE

Areas of concern





Audience Q&A

- Prioritizing AF
 - Does your organization make the link between AF and stroke?
 - Is AF a priority for your organization?
- Effective research processes
 - Challenges with the questionnaire
 - In-house vs. external support
 - Streamlining future research efforts



Lunch



AF management in Europe: Filling the gaps

Workshop Sessions



Workshop A – Improving patient/caregiver information

- Willy Devriesere
- Antje Marquardt
- Guisepee Bonatto
- Gianfranco Falco
- Debbie Wilson
- Tamar Janelidze
- Adam Siger
- · Anna Novitskaya
- Lilia Zviagina
- Anna Kontsevaya

Workshop B – Helping move practice closer to guidelines

- Dr. Markus Wagner
- Lineke Dijkstra
- Arne Hagen
- Chatarina Lindgren
- Raphael Bene
- Branko Malojcic
- Thorir Steingrimsson
- Wlodzimierz Dluzynski
- Anton Grad
- · Dr. Günther Breithardt

Workshop C – Raising the profile of AF with policymakers

- Esteban Pont Barceló
- Sandra Levy
- Jan op 't Land
- Jon Barrick
- Jasiminka Delilović Vranić
- Mikheil Shavquildze
- Maja Bozinovska
- Maria Panchenko
- Anat Moshe

Workshop D – Raising the profile of AF in the media

- Manuela Messmer-Wullen
- Pnina Rosenzweig
- Ruza Acimovic Janezic
- Jelka Jansa
- Nicola Skingle
- Volha Zmachynskaya
- Sigurdur Hjalti Sigurdarson
- Carmen Ferrer
- Eva Jané Aleix
- Irina Hubetova
- Miran Kenda



AF AWARE

Coffee break



Workshop feedback session

Facilitated by Dr Markus Wagner



Summary of next steps

Dr Markus Wagner



Thank you

