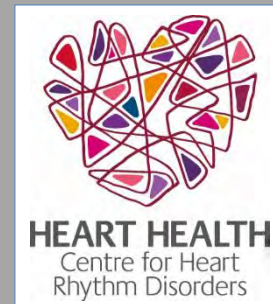


IT tools to track and foster therapy adherence within an integrated care approach

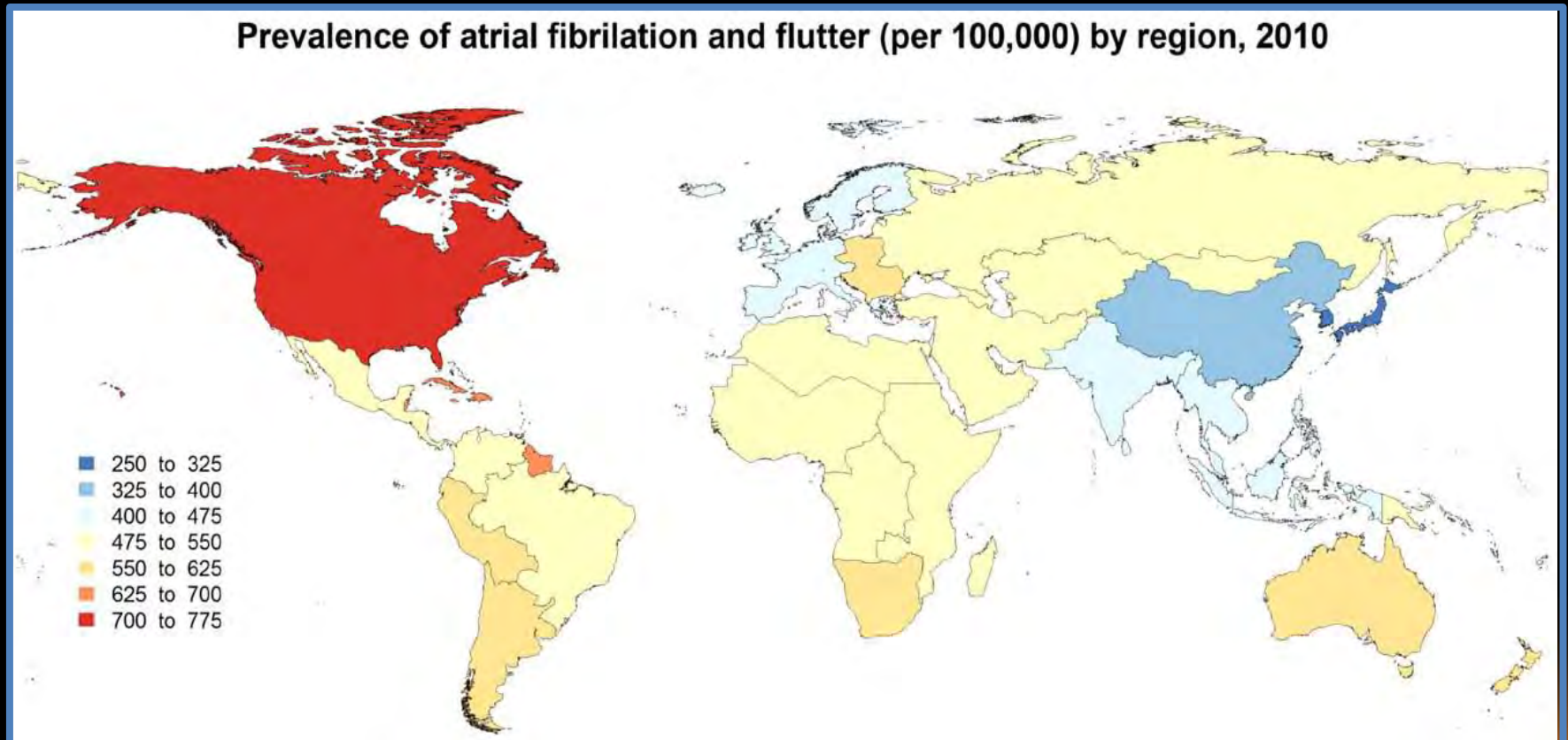
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Department of Health and Medical Sciences, Linköping University, Sweden



Prevalence of Atrial Fibrillation



The Challenge in AF Management

- Increasing complex patients with multiple health problems
- Patients with multiple needs are likely to utilise long-term health care services

BUT

- Care systems are increasingly struggling to cope
- Fragmentation of care leads to poor coordination of care and poor patient outcomes

Providing integrated care for atrial fibrillation patients

Integrated AF management

Patient involvement

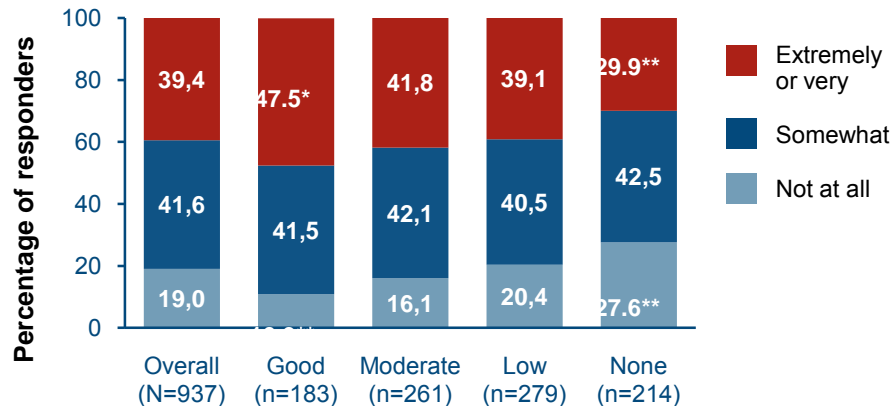
- Central role in care process.
- Patient education.
- Encouragement and empowerment for self-management.
- Advice and education on lifestyle and risk factor management.
- Shared decision making.
- ***Informed, involved, empowered patient.***

Patient involvement, education and self-management

Recommendations	Class	Level
Tailored patient education is recommended in all phases of AF management to support patients' perception of AF and to improve management.	I	C
Patient involvement in the care process should be considered to encourage self-management and responsibility for lifestyle changes.	IIa	B
Shared decision making should be considered to ensure that care is based on the best available evidence and fits the needs, values and preferences of the patient.	IIa	C

Patient's knowledge and perceptions towards SPAF

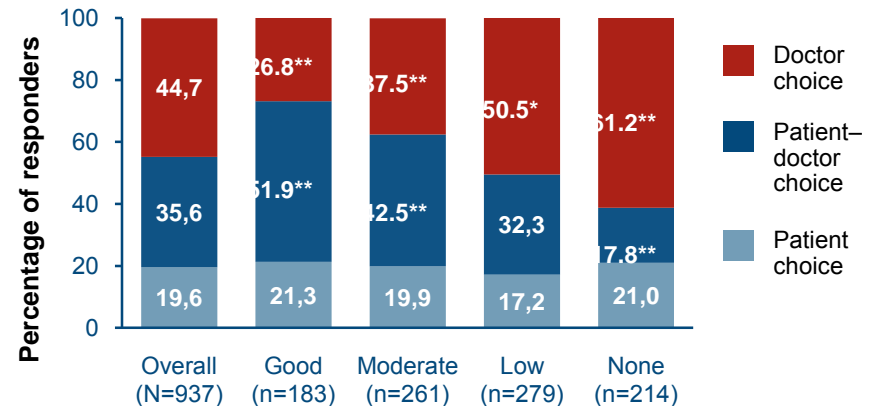
Perception of seriousness of AF



Stroke knowledge

*P<0.05; **P<0.001 vs other groups pooled

Patient preference for involvement in OAC treatment choice

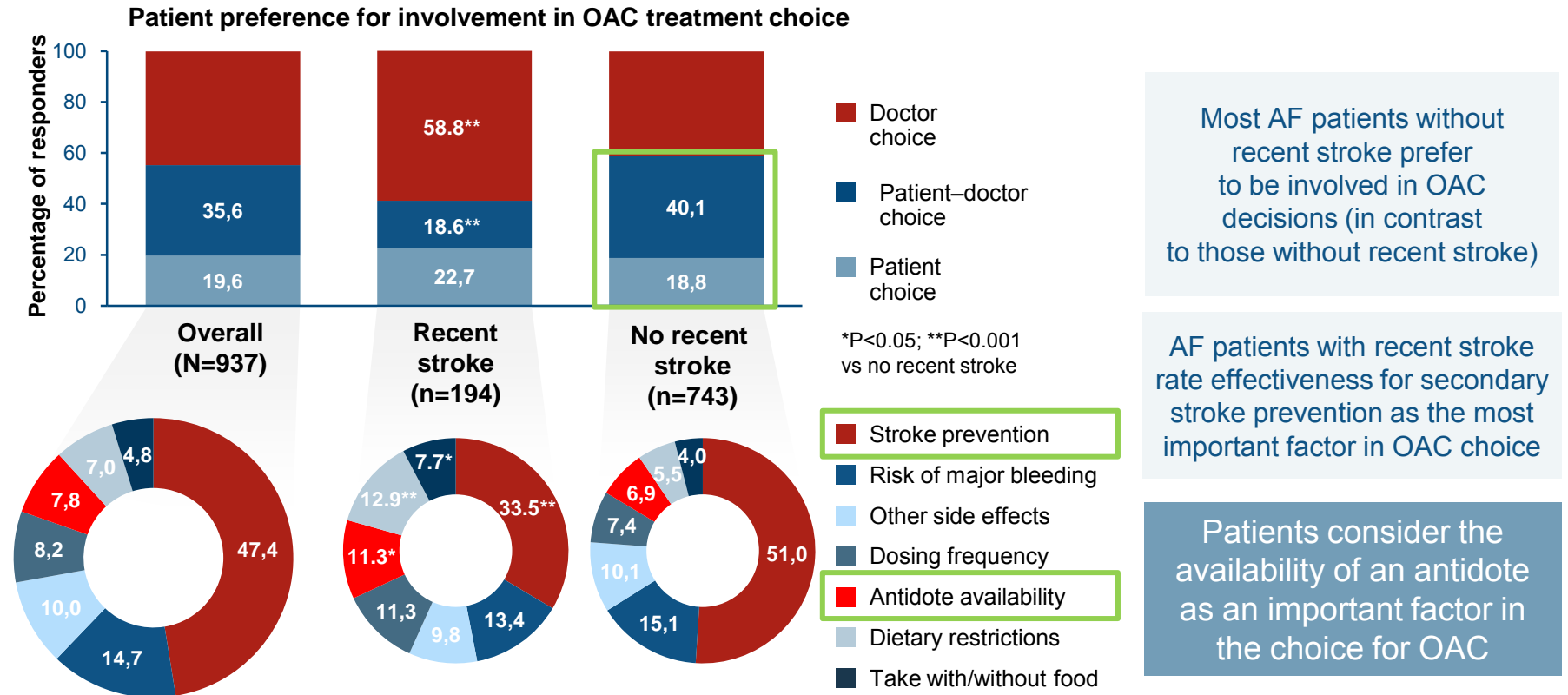


Stroke knowledge

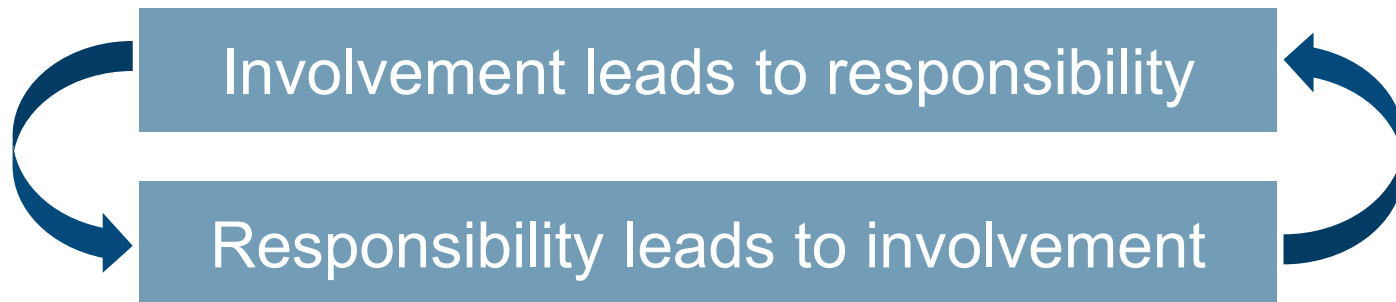
Patients with good or moderate knowledge are more concerned about a stroke and want to be involved in joint decision-making in OAC treatment

Patient education on AF and efficacy and safety of OAC treatment is crucial and may improve patients' abilities to participate in joint decision-making and increase self-management and treatment adherence

Patient preferences for involvement in OAC therapy



Accountable anticoagulation



ESC Guidelines

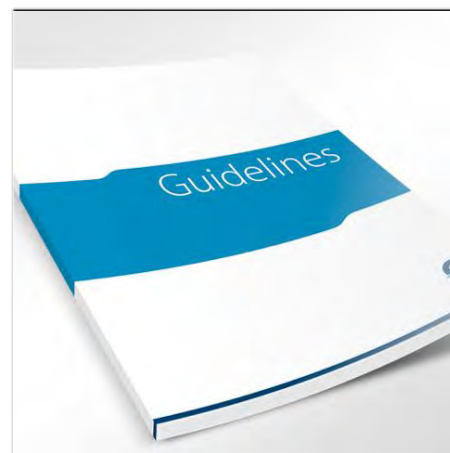
(SP)AF treatment should fit the values, needs and preferences of the individual patient, and provided based on the best available evidence

Nurses, physicians, and patients are all accountable for meeting the ESC guidelines statement on AF treatment

Redesigning Daily Practice

Nurse-led Integrated Chronic Care Program

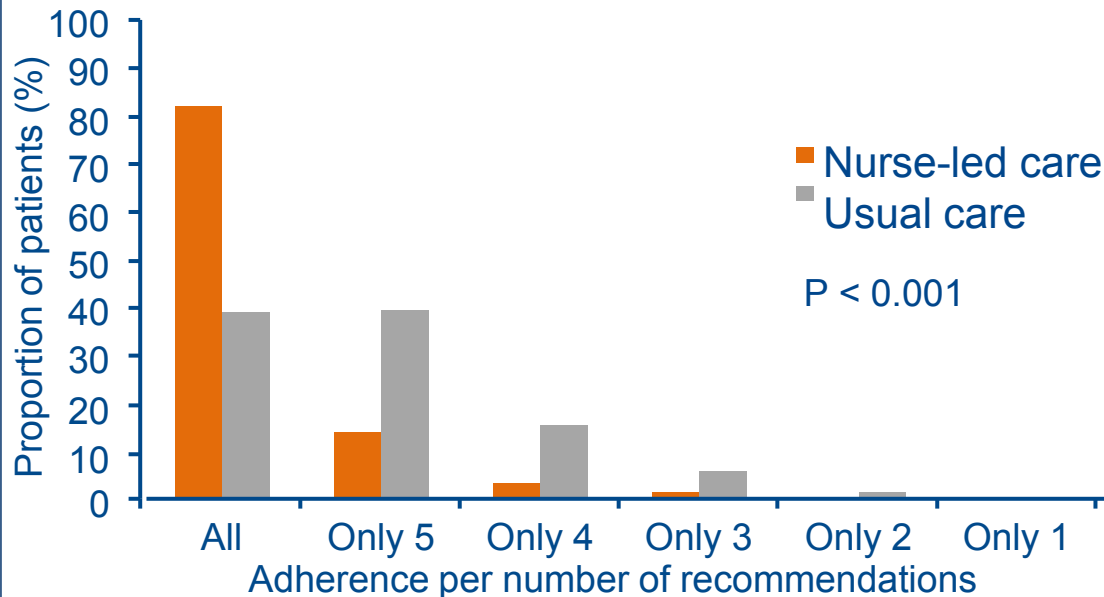
Cardiologist



Improved Outcomes

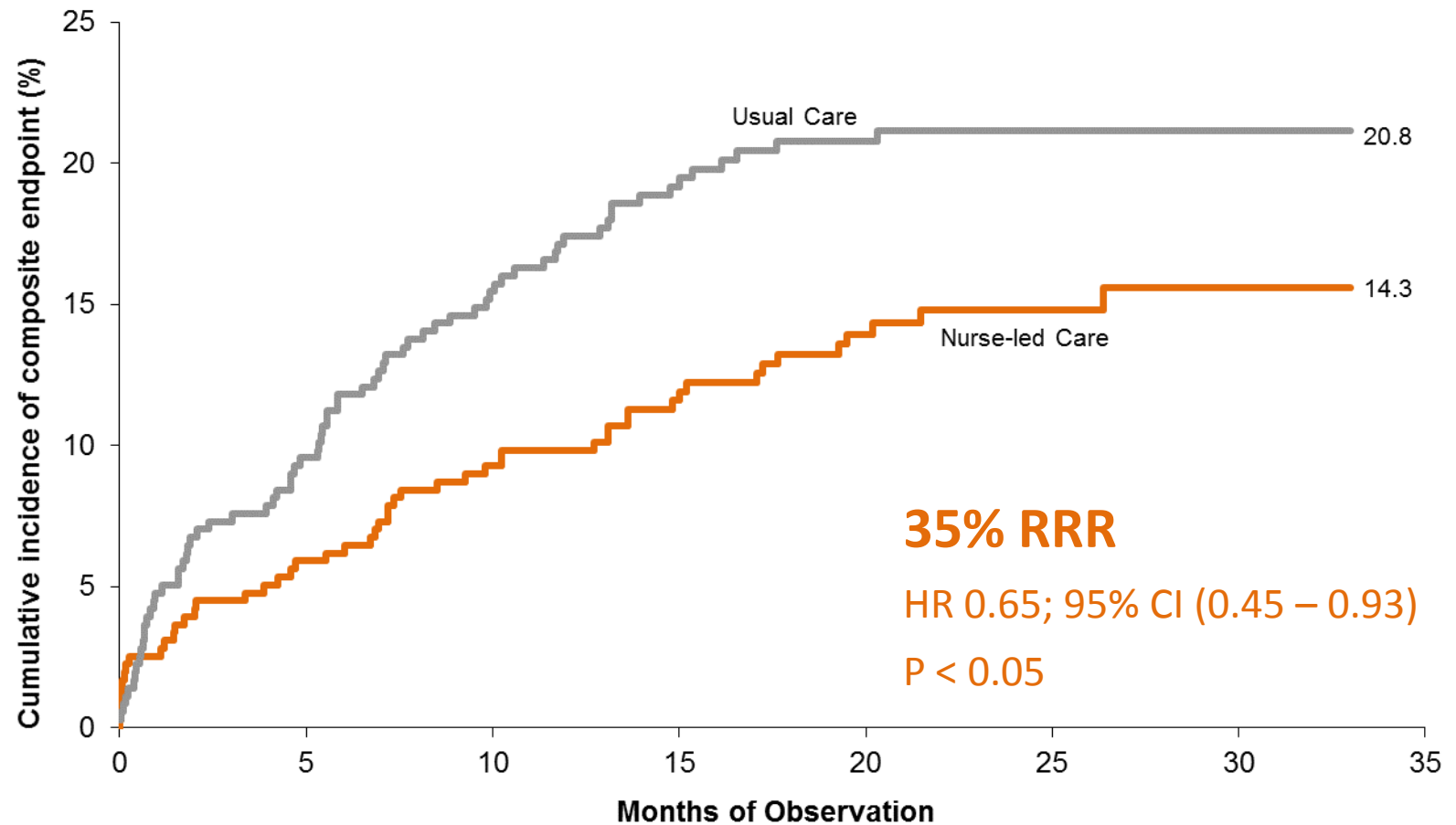
Guidelines more comprehensively implemented in Integrated Care

Guideline	Nurse-led care	Usual care
Appropriate prescription of anti-arrhythmics	87%	82%
Avoiding rhythm control strategy in asymptomatic patients	95%	85%
Avoiding rhythm control drugs in patients with permanent AF	97%	93%
Application of appropriate antithrombotic treatment	99%	83%
Performed echocardiogram	91%	82%
Laboratory assessment of thyroid stimulating hormone	91%	54%



Significantly higher guideline adherent management in patients receiving integrated software supported care

Composite Endpoint: Cardiovascular Hospitalisation or Death



Decision support software to guide therapeutic management

- Electronic patient record
- Electronic checklist to prevent incomplete management
- Communication between the AF-team and patient
- Navigation system to guide clinical decision making
- Education and coordination of care
- Virtual clinics
- Remote monitoring to check adherence
 - How did you take your medication yesterday?
 - Thromboembolic events
 - Bleeding events
 - Set dates for laboratory control



Tools to enhance medication adherence on patient level



CATCH ME Consortium: smartphone & tablet apps



2016 ESC AF Guidelines
Support health care team
Actively involve patients
Integrate AF care



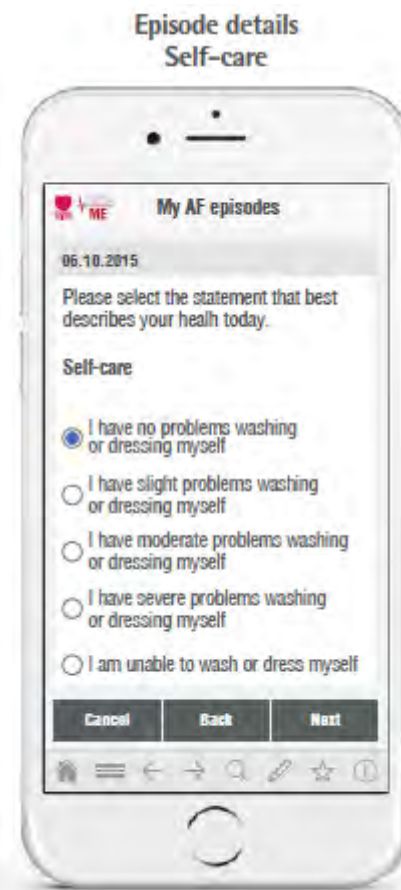
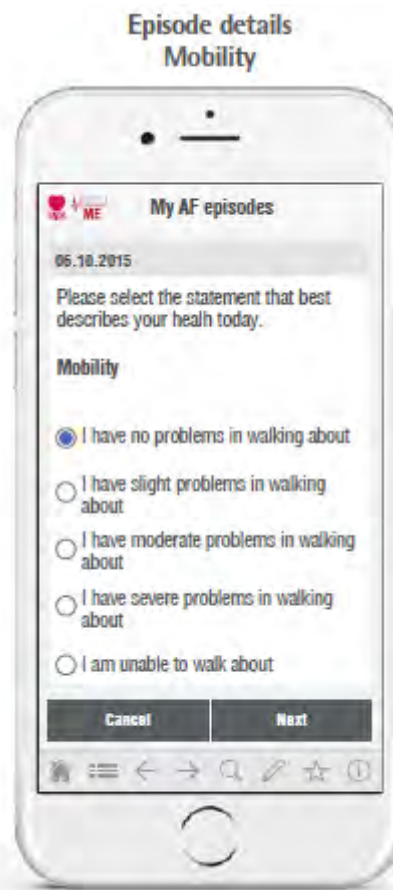
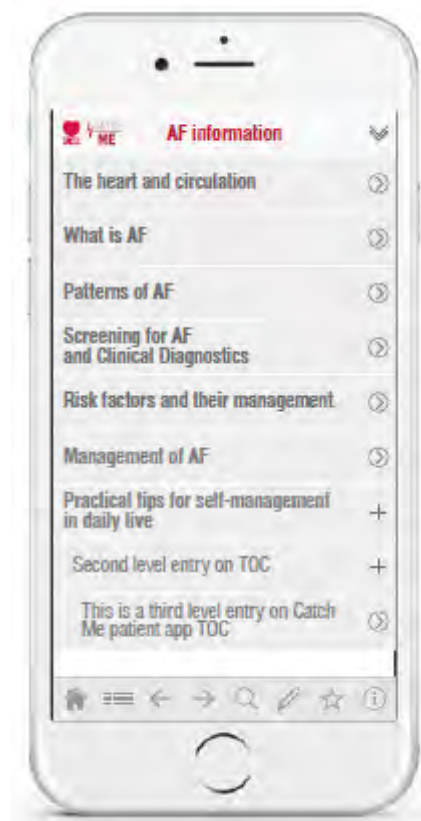
My AF Patient App

- **Patient education designed for and by patients**
 - Text and images provided by the British Heart Foundation, AF patients, ESC GL Task force, EHRA and AFNET patient websites, closely aligned with 2016 AF guidelines.
- **Possibility to record vital parameters in 'my health'**
- **Track information on self-management of patients**
- **Patient can choose to transfer health data to health care professional app**

A white smartphone displaying the 'My further information' form. The form includes sections for 'Anti-inflammatory drugs', 'Pregnancy', and 'Family history', each with 'Yes' and 'No' buttons. The 'Family history' section has two questions about family members with heart or stroke conditions. At the bottom, there are 'Cancel', 'Back', and 'Next' buttons, and a standard iOS navigation bar.

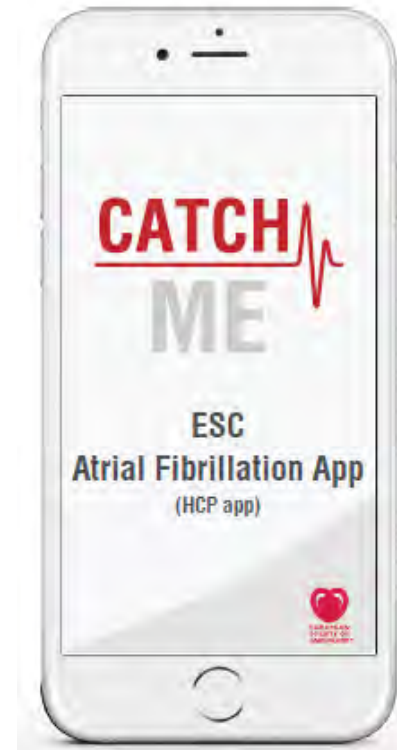


Patient App



AF Healthcare Professional app

- **Integrated treatment manager**
 - 'Pocket version' of the 2016 Guidelines
 - Fill in or access information transferred by patient.
 - Receive individual treatment recommendations covering all five domains of AF treatment, aligned with 2016 AF guidelines.
 - Transfer data safely from and to patient and other professionals.





Overall Treatment Manager

AF Treatment Manager

Stroke Prevention Therapy

Congestive Heart Failure OR left ventricular dysfunction ☐ Yes ☐ No

Hypertension (controlled) ☐ Yes ☐ No

Hypertension (uncontrolled) ☐ Yes ☐ No

Age

Diabetes mellitus ☐ Yes ☐ No

Prior Stroke / TIA ☐ Yes ☐ No

Vascular Disease (coronary, cerebral, peripheral) ☐ Yes ☐ No

Sex / Gender ☐ Female ☐ Male

Unstable INRs OR low time in therapeutic range ☐ Yes ☐ No

Prior bleed or anaemia ☐ Yes ☐ No

Concomitant antiplatelets ☐ Yes ☐ No

Alcohol excess and other markers for decreased therapy adherence ☐ Yes ☐ No

Rate Control Therapy

Kind of rate control

Acute ☐ Long-term ☐

Does AF cause any symptoms? ☐ Yes ☐ No

Normal daily activity not affected by symptoms related to AF, but patient troubled by symptoms ☐ Yes ☐ No

Normal daily activity affected by symptoms related to AF ☐ Yes ☐ No

Normal daily activity discontinued ☐ Yes ☐ No

mEHRA symptom scale is

Heart Rate (bpm): Target Heart rate (bpm): <110

LVEF≤40% ☐ Yes ☐ No ☐ Unknown

Rhythm Control Therapy

Does AF cause any symptoms? ☐ Yes ☐ No

Normal daily activity not affected by symptoms related to AF, but patient troubled by symptoms ☐ Yes ☐ No

Normal daily activity affected by symptoms related to AF ☐ Yes ☐ No

Normal daily activity discontinued ☐ Yes ☐ No

mEHRA symptom scale is

Signs of structural heart disease

☐ None/minimal

☐ Coronary artery disease, Significant valvular heart disease, abnormal LVH

☐ Heart failure

Have any of the following treatment options been used in the past?

AF THERAPY SUMMARY

Stroke prevention therapy

Name	Dose	When	Since
Choice of Anticoagulant			

Rate control therapy

Name	Dose	When	Since
Rate Control Choice			

Rhythm control therapy

Name	Dose	When	Since
Rhythm Control Choice			

Other Medications

Name	Dose	When	Since
Add Medication...			

Next Steps/Comments



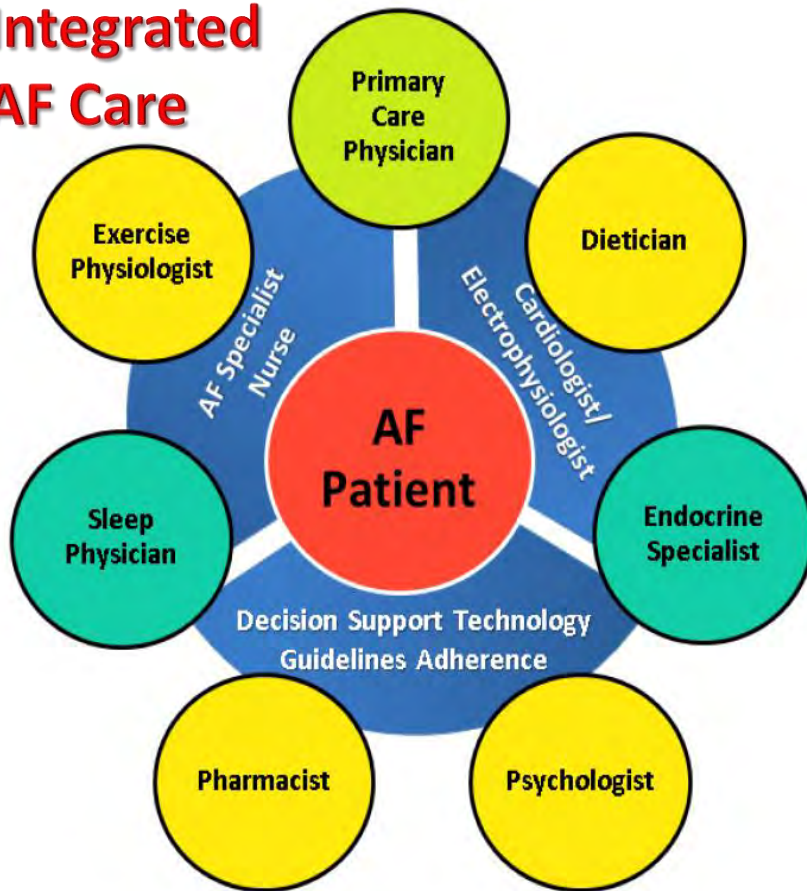


Patient-HCP data sharing



Use of IT tools in integrated care approach

Integrated AF Care



- Requires comprehensive, multidisciplinary approach with structured organization of care
- Patient education, engagement & empowerment is crucial
- IT tools vital in communication and adherence, and improving outcomes (for patients and health care professionals)

Thank you

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