AF burden
INTERNATIONAL CONSENSUS WORKSHOP

MUNICH, GERMANY
FEBRUARY 23-24 2023

International Consensus Workshop

Determining clinical categories and consensus definition of AF Burden

International expert group closed meeting 2023

RATIONALE AND BACKGROUND

Atrial fibrillation (AF) is a major risk factor for stroke. Despite substantial advances in both the treatment for AF and the prevention of AF related strokes, fundamental questions on pathophysiological mechanisms, risk assessment, prevention and therapy are still unresolved. There is a unmet medical need for clinically applicable concepts in AF diagnostic workup and individual patient risk evaluation.

The concept of **AF burden** has been introduced to address the relevance of AF for clinical, epidemiological and economic perspectives [1]. Despite the obvious innovative potential of the AF burden concept, a clear and clinically applicable definition of this concept is lacking. Key characteristics of the concept of AF burden remain vague, and too complex for clinical (bed side) application [2]. There is a clear clinical need to define the risk conditions of AF in the context of clinical siutations and of individual patient characteristics in order to develop **AF burden** into a meaningful tool for clinical decision making in diagnostic workup, preventive and therapeutic reasoning.

SCOPE AND PROJECT OUTLINE

A workshop with renowned experts (clinicians, trialists, scientists) in the field of AF and stroke with interdisciplinary backgrounds (cardiology / atrial fibrillation , neurology / stroke) will be held (two half days) to discuss current knowledge and gaps in the evidence of AF burden.

The aim of the workshop is to propose a consensus definition of the concept of AF burden with clinically meaningful applicability.

A structured agenda will address key questions on the diagnostic and therapeutic workup for patients regarding the identification and characterisation of AF related risk and stroke prevention. The final consensus statement on AF burden as a clinically applicable concept will inform clinicians and health care workers as well as trialists. The statement aims to:

- **inform doctors in clinical practice about how to assess AF burden in patients,**
- **define innovative targets for future research of clinical and technological concepts,**
- **encourage a standardized assessment of AF burden in future studies,**
- **advance the academic discussion on AF-stroke interaction.**

TMA TRANSLATIONAL MEDICINE ACADEMY

Aims of the Conference

PRIMARY AIMS:

Developing a consensus statement that defines the concept of AF burden as a clinically applicable principle to inform clinical evaluation in regard to diagnostic value, risk assessment and therapeutic options.

SECONDARY AIMS:

- Addressing key questions that help to define the scope of AF burden,
- Developing a platform and structure for interdisciplinary expert discussion and consensus process for subsequent topics.

Meeting structure and concept outline

SCIENTIFIC PROGRAM NUCLEUS:

The nucleus of the consensus group will be responsible to prepare the scientific program, define the key questions for the discussion, prepare the consensus process and draft the scientific document.

Co-Chairs:	John Camm (UK), Wolfram Doehner (GE)
Nucleus:	Giuseppe Boriani (IT), Tatjana Potpara (SER), Karl Georg Haeusler (GE)

FACULTY:

20 internationally renowned experts in AF and stroke prevention with high clinical and academic standing.

A full time in-person attendance is required to ensure recognition of consensus voting (no late arrival or early departure).

OBSERVER:

Industry partners with an interest in the topic will be invited:
- to observe the academic exchange
- to contribute to the debate in selected aspects

PROGRAM LOGISTICS:

Two half days (afternoon – morning) with 2-3 sessions per half day, each addressing a specified topic (key question) in a defined structure:

- A kickstart presentation to introduce the topic and the unmet need (8 min max, invited presenter)
- Open discussion round the table (all)
- Presentation of the key question and options for a consensus (session chair)
- Discussion of the consensus options (all)
- Voting on a consensus for each question (all)

The final session will address the consensus statement on a clinical definition of AF burden.

- Impulse presentation to summarise the unmet need and the discussed key questions
- Propose a clinical definition of AF burden (session chair)
- Discussion and Voting for a consensus (all)

Description of consensus process

The consensus discussion for each separate key question is structured as indicated.
The discussion is moderated by the session chair. As a result of the discussion with endorsement from partner academic associations a proposed consensus option can be accepted, modified or rejected. The voting for consensus is recorded according to predefined levels of consensus.

LEVEL OF CONSENSUS IS PROSPECTIVELY DEFINED

- **100% unanimous consensus**
- **> 90% strong consensus**
- **> 75-90% moderate consensus**
- **> 50-75% weak consensus, majority agreement**
- **≤ 50% no consensus**

OUTCOME AND DISSEMINATION

A scientific writer will we used to prepare a first draft of the manuscript based on the discussions and the consensus statements.

- Consensus statement of the partner groups (ESC Council on Stroke, EHRA, WSO, ...)
- Publication of the consensus statement in a peer reviewed Journal

MEETING LOGISTICS

Munich, Germany

23 - 24 February 2023

Key questions for consensus discussion

(each addressed in a separate session including kickstart presentation, discussion, and voting)

1) Is there only *one* burden or are there several burden related to AF

Defining the scope of the planned definition as different aspects of burden may be considered: risk of stroke, clinical burden of AF, impact on HF, impact on cognitive function.

2) What is the dynamic nature of AF burden?

Addressing the fluctuation of AF burden:
Does the dynamic nature of AF burden allow for a clinically applicable scoring of burden in a valid and reproducible way? Addressing external factors that define the dynamic of the burden?

3) Which AF duration is clinically meaningful to define a cut-point of increased (stroke-) risk?

AF duration cutpoints of relevance range from 30 sec to 24h. Are there one or several clinically most applicable cutpoint(s)?

Is there a difference in primary vs secondary prevention?
Impact of continued episode vs cumulative AF time?

4) What is the optimum strategy to assess / to detect AF

a - Academic perspective: Comparing methods for AF recording regarding their validity (availability, complexity, costs, compliance): implanted loop recorder, repeated long term assessment (various regimens), one-time assessment.

b - Technical/Commercial perspective: Addressing medical grade vs consumer grade devices regarding quality of assessment, applicability,
Addressing the need of qualified expert analysis vs. AI algorithm

5) Are factors other than AF duration relevant and if so, which?

Addressing the impact of cofactors to modify the burden:
(additional targets of burden assessment) • LA/LV morphology, CV risk factors, biomarker, comorbidities?

What is the value of the AF-4S system of AF characterization?

6) How important is the temporal association of AF and stroke?

Addressing the current discussion on AF as :

a - marker of atrial myopathy and prothrombotic state involving multiple other factors than AF duration, vs.

b - AF as main mechanism (mediator), following the classical concept of thrombus formation depending on AF duration

Final session

A clinical applicable consensus definition of AF burden:

Addressing the scope of the term : key characteristics, what to assess, how to assess, description of clinical categories of burden aimed for clinical (individual patient) application and decision making.

References

1. Hindricks G, Potpara T, Dagres N, Arbelo E, Bax J, Blomström-Lundqvist C, et al. 2020 ESC Guidelines for the diagnosis and management of atrial fibrillation: The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC) Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC. European Heart Journal. 2020;eha612.

2. Boriani G, Vitolo M, Diemberger I, Proietti M, Valenti AC, Malavasi VL, Lip GYH. Optimizing indices of atrial fibrillation susceptibility and burden to evaluate atrial fibrillation severity, risk and outcomes. Cardiovasc Res. 2021;117:1-21.

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ORGANIZATION

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TMA TRANSLATIONAL MEDICINE ACADEMY

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