EHRA
European Heart
Rhythm Association

Digital devices for atrial fibrillation screening and future perspectives
Joint webinar with Heart Rhythm Society (HRS)

Saturday 22 August 2020 from 17:00 to 18:00 CET

QUESTIONS AND ANSWERS

Answers written by Asst. Prof. Jens Eckstein

Questions	Answers
What is the length to diagnose AF, 30 sec?	There is no official definition to this, but yes, based on expert consensus it is >30sec. Although this might be revised and defined longer in the future.
How long anti-arrhythmic drugs after AF ablation	This depends on multiple factors. First on the centers standards. Second on the fact if the patient was in persistent or paroxysmal AF before. Then on how well the patient tolerates the drug. In general I can say, that many centers continue AA drugs for up to three months to cover the healing period and enable sufficient remodeling.
How to define AF? 30 seconds of length?	See line 2

How long DOAC After successful cardioversione of AF	Lifelong if not indicated otherwise. This is based on the hypothesis that AF is a surrogate marker for a diseased atriu rather than the direct cause of thrombembolism.
Would you change medical management (eg OAC) based only on single lead Ecgs by für example Apple Watch?	Dr Eckstein: I would accept a Sinus rhythm tracing with a smart watch if it is clear. But I would not start anticoagulation based on an single lead tracing. Stopping OAC based on a Sinus rhythm tracing would not be adequate. Note that this differs from the new ESC 2020 guidelines on AF where a single lead ECG with AF for 30 seconds is sufficient if reviewed by physician.
Do you think a smart watch is helpful for decision making to discontinue oac after successful PVI in young patients?	Yes, this could be a specific use case in the future when we decide on AF burden rather than the absolute presence of AF. Smart watches will offer a extended monitoring and help us to balance the risk of OAC against stroke in these patients. But the data still has to be worked up and be implemented in the guidelines.
Can Nabivelol as a B. Blocker can be used to control rate of A.Fib.	We don't use it.
Can we use DAPT therapy for any patient now than or at 65yrs as prophylaxis for A.Fib.and when this confirmed or documented add or replace DAPT by OACs	DAPT is no substitute for OAC. It might be required if an indication (STEMI...) is present, and then the indication for triple therapy has to be discussed as indicated in the guidelines.
Is there a overview of available ecg devices?	Not to my knowledge
why don't leave the check to educated personal check and occasional check by GP at each clinical admission for any reasons ? ?	Don't fully understand the question? It should be standard though with any visit to a medical unit to check for heart rate and rhythm.

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Which is the best anticoagulant drug to resolve a Left Atrium Appendage thrombus in atrial fibrilation patients?	Most likely still VKA.
Do you think Holter monitoring will become obsolete as the technology advances?	It will become less frequent due to a higher pretest probability if patients are screened with mobile sensors and only use holter to confirm the diagnosis. But as of now, the diagnosis still requires at least two simultaneous leads.
Can you diagnose other arrhythmias eg AVNRT from Applewatch it the traces have very convincing signals & characteristic initiation termination and even aberrant conduction morphologies? We r being bombarded by these device traces from pt who have had previous negative Holter or cardiac memo monitoring due to infrequent paroxysms now captured by their personal devices.	
what is the minimal length of AF to count it as a single epide	See line 2. Expert consensus 30sec. Most likely too short.
What is your opinion on the prediction of AF based on ECG recorded during sinus rhythm, for example: Attia ZI, Noseworthy PA, Lopez-Jimenez F, et al. An artificial intelligence-enabled ECG algorithm for the identification of patients with atrial fibrillation during sinus rhythm: a retrospective analysis of outcome prediction. Lancet. 2019;394(10201):861-867. Similar findings were reported with the Kardia, Alivecor single leand ECG - last year at the ESC annual congress.	I think this is a valid decision support if I have to decide for an extended monitoring rather than the usual care. Even more so, because the prediction that NO AF will occur is quite good.
There are several ECG patches available of the market, e.g. ZioX, CAM and other. The same arrhythmia can be differently diagnosed by such patches. Which pathc is the best studied and most accurate?	The key remains the handling of the device (Is it self service for the patient or applied by a med-tec). The quality of the signal does not differ too much. To my knowledge Zio patches are among the best studied ones, but I am not sure.
How Apple Watch gets 1 lead ECG if it is located on 1arm ?	By touching the digital crown with your other arm (thumb) ;-)

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Which of the technologies presented today would you be comfortable to use for diagnosing of AF and deciding for OAC?	The most comfortable solution will be automated screening by a smartwatch (PPG), first confirmation in case there is some Arrhythmia by a Smart Watch single lead ECG, and if indicative for AF, confirmation with a patch.
Can you rank the discussed methods (Smartphone PPG, Smartwatch PPG, 2-Lead ECG) based on how likely you trust their results regarding AF?	1. 2 lead ECG, 2. Smartphones PPG, 3. Smart watch PPG
When will we be ready for a global screening of at-risk populations, and who will they be? E.g. anyone with a stroke? How should it be done? will we be using for automated ECG data analysis ?	I think we are about ready for global screening, because everybody around the globe has a smartphone and medical grade screening Apps are available for smartphone PPG screening. This will be even more comfortable as smartwatches get more familiar. Certainly everybody with a stroke should get screened extensively, because if the cause is AF, the usual Anti platelet therapy is not protective. This kind of screening can only be done by AI driven automated analysis, but in the end confirmation is still done by a specialist.
is this digital technology reimbursed in your countries?	Business models are coming up. For example, that Apps are covered for by the insurances and analytic services are provided within this reimbursement.
Redstroke trial can introduce the PPG for opportunistic screening? Until now, we were focus on systematic screening	We suggest to use "opportunistic" screening in a population with an increased risk for AF. Certainly not CHADS Vasc 0 or 1 (No consequences in case of diagnosis).