

Remote app-based management of atrial fibrillation during the COVID-19: The centre characteristics and experiences of the European TeleCheck-AF project

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Aims: Herein we describe the characteristics, inclusion rates and experiences from participating centres in the European TeleCheck-AF project. TeleCheck-AF is a multicentre international project initiated to maintain care delivery for patients with atrial fibrillation (AF) during COVID-19 through teleconsultations supported by an on-demand photoplethysmography-based heart rate and rhythm monitoring app (FibriCheck®).

Methods: Two surveys exploring centre characteristics (n = 25) and centre experiences (n = 23) were completed.

Results: Most centres were academic (64%) and specialized public cardiology/district hospitals (36%). Majority of centres had AF outpatient clinics (64%) and only 36% had AF ablation clinics. The time required to start patient inclusion and total number of included patients in the project was comparable for centres experienced (56%) or inexperienced in mHealth use. Within 28 weeks, 1930 AF patients were recruited, mainly for remote AF control (31% of patients) and AF ablation follow-up (42%). Average inclusion rate was highest during the lockdown restrictions and reached a steady state at a lower level after easing the restrictions (188 vs 52 weekly recruited patients). Majority (>80%) of the centres reported no problems during the implementation of the TeleCheck-AF approach. Centres agreed that the on-boarding process of their center in the TeleCheck-AF project was simple and access to the patients measurements via stand-alone cloud infrastructure was trouble-free and possible from the first day on. They also agreed that remote heart rate and rhythm assessment by the FibriCheck® app around teleconsultation supported their medical decision making; that their patients responded positively to use FibriCheck® for seven days; and that they felt comfortable to interpret PPG recordings.

Conclusions: Despite different health care settings and mHealth experiences, the TeleCheck-AF approach could be set up within an extremely short time and easily used in different European centres during COVID-19.

Abstract Figure.

