

Trial reveals success of telemedicine-supported, village doctor-led approach to managing atrial fibrillation

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Telemedicine support to village doctors could hold the key to improving access to care for China's rural elderly at risk for developing potentially life-threatening complications resulting from untreated atrial fibrillation (AF), according to research presented in a Hot Line Session on Sept. 1 at this year's [ESC Congress 2024](#).

AF, a common heart rhythm disorder, is a leading preventable cause of ischemic stroke, estimated to affect 1.6% of adults in China (approximately 18 million people). China's rural health care, mostly relying on [village](#) doctors, faces considerable challenges in delivering optimal AF management.

"With an aging population, the burden of this potentially deadly heart rhythm disorder in China is increasing rapidly. High prevalence intersects with increased vulnerability among rural older individuals due to limited awareness and treatment gaps," said lead author Professor Minglong Chen at The First Affiliated Hospital of Nanjing Medical University, Nanjing, China.

"To address this lack of access to care, we created a digital health support platform to help village doctors provide integrated AF care that may be more feasible and sustainable in [low-resource settings](#)."

The study included 1,039 adults with AF, aged 65 years or older, from 30 villages in Jiangdu County, Jiangsu Province in rural China. Before randomization, village doctors received intensified training around integrated care management of AF according to the Atrial fibrillation

Better Care (ABC) pathway .

Between December 1, 2020, and May 9, 2022, the study village clinics were randomized (1:1) to either village doctor led telemedicine integrated care (intervention group) or enhanced usual care with intensified AF education given to all patients and their families ([control group](#)).

Only the village doctors in the intervention group were supported and supervised by AF specialists in tertiary hospitals via the telemedicine platform.

People in half the villages (524 adults; average age 76 years; 45% female) received the intervention, and those in the other 15 villages (515 adults; average age 76 years; 43% female) received enhanced usual care because of the intensified ABC training received by all village doctors.

After one year, 33% of patients in the intervention group and 8.8% in the control group met all three criteria for the ABC pathway—a group difference of around 24%. By three years, this had increased to almost 42% of patients in the intervention group and around 10% in the control group (a difference of 31%).

After three years, rates of the composite primary outcome (cardiovascular death, all strokes, hospitalization due to worsening of heart failure or [acute coronary syndrome](#) [ACS], and emergency visits due to AF) were 36% lower in the intervention group compared with the control group (82 vs. 122 events; 6.21% vs. 9.62% per year; group difference after considering the cluster effect: -3.80%).

Specifically, the risk of cardiovascular death was 50% lower in the intervention group (24 vs. 47 events), while the risk of any stroke and hospitalization due to worsening of heart failure or ACS were 36% (21

vs. 32) and 31% lower (43 vs. 61), respectively, compared to the control group.

However, clinically-relevant non-major bleeding was higher (nine vs. three events) in the intervention group, reflecting treatment with anticoagulant therapy.

"The magnitude of the reduction in serious cardiovascular events in patients in the [intervention group](#) is impressive," said Professor Chen.

"Our results indicate that the telemedicine-based, village doctor-led, AF specialist-supported intervention was effective and is a feasible and sustainable implementation strategy that could be scaled-up to improve the management of [atrial fibrillation](#) in the older population across rural China and in other low-and-[middle income countries](#) with limited health-care access."

Provided by European Society of Cardiology

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