Home-based education reduces hospitalizations in patients with atrial fibrillation

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Home-based and personalised education keeps patients with atrial fibrillation out of hospital, according to late breaking results from the HELP-AF study presented today at ESC Congress 2019 together with the World Congress of Cardiology.

Principal investigator Professor Prash Sanders of the University of Adelaide, Australia said: "The initiative was designed to empower patients to understand and take control of their atrial fibrillation, i.e. to improve self-management. Its success in stopping hospital admissions has enormous implications for the delivery of care in atrial fibrillation. As healthcare costs grow due to hospitalisations, such programmes are essential."

Over the last few decades, the number of people living with atrial fibrillation around the world has grown exponentially. This is because populations are getting older and acquiring lifestyle related conditions such as high blood pressure, obesity, sleep apnoea and diabetes that raise the risk of developing atrial fibrillation. Atrial fibrillation is now a more common cause of presenting to hospital than heart failure or heart attacks.

Prof Sanders said: "Some hospital admissions for atrial fibrillation are likely preventable through better education of those living with the condition. We believed that involving patients in their care, helping them

understand their condition, and providing tools to manage it might avoid hospitalisations. This led us to do the HELP-AF study, which looked at the impact of home-based education on hospitalisation and quality of life."

The study enrolled 627 patients with atrial fibrillation presenting to the emergency department of six hospitals in Adelaide, South Australia. Patients were randomised to the HELP-AF programme or usual care. Patients were approached to participate within two months of their emergency department presentation.

Patients allocated to the intervention received two educational home visits by a nurse or pharmacist: one approximately two weeks after enrolment and the second six weeks after that. Patients received a booklet for future reference. Education was delivered in a structured way and focused around four messages: 1) management of future atrial fibrillation episodes; 2) importance of medicines to manage symptoms and stroke risk; 3) appropriate use of stroke prevention medicines; and 4) role of lifestyle modification. Messages were personalised to target areas where behaviour change was needed.

Patients were followed up for two years for the primary endpoints of all-cause unplanned hospitalisation and health-related quality of life evaluated by the 36-Item Short Form Health Survey (SF-36).

At 24 months, total unplanned hospitalisations were 233 in the HELP-AF group and 323 with usual care with an incident rate ratio of 0.74 (95% confidence interval 0.62-0.89; p=0.001). After multivariable adjustment, the intervention reduced total unplanned hospitalisations by 26%, atrial fibrillation related hospitalisations by 31%, and other cardiovascular hospitalisations by 49%, while having no impact on non-cardiac hospitalisations.

There was no difference in health-related quality of life using the SF-36 survey, which is a generic health survey. Using a more specific questionnaire, the Atrial Fibrillation Effect on QualiTy-of-Life (AFEQT), there was gradual improvement in quality of life measures over time in both groups. This reached significance at 24 months in two subcategories of the "Symptoms" and "Treatment Concern" domains, in favour of the intervention.

Prof Sanders said several components of the scheme likely contributed to the fall in hospitalisations:

- Education was delivered in the comfort of the patient's home using language they could understand and focusing on areas important to them.
- Patients received a booklet as an ongoing reminder of the four messages.
- The material listed questions patients could discuss with their physician to help manage their disease.
- The booklet outlined the "REST plan" for patients to follow during atrial fibrillation episodes to avoid going to hospital. This included developing an emergency management plan with their physician and a dedicated telephone service for advice from a cardiologist.

Prof Sanders said: "The study shows that education delivered in a structured and individualised way within the patient's home has a dramatic impact not only on hospitalisations for atrial fibrillation but on all cardiovascular hospitalisations."

The design of the intervention makes it easy to replicate in other countries and settings, noted Prof Sanders. Nurses and pharmacists were trained in a structured educational visiting approach and upskilled in atrial fibrillation management. "It was personalised education using a

structured delivery method," he said.

More information: "A home-based education and learning program for atrial fibrillation: the HELP-AF study" ESC Congress 2019 together with the World Congress of Cardiology.

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