

Study examines comparative effectiveness of rhythm control vs. rate control drug treatment

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An observational study that examined the comparative effectiveness of rhythm control vs. rate control drug treatment on mortality in patients with atrial fibrillation (a rapid, irregular heart beat) suggests there was little difference in mortality within four years of treatment, but rhythm control may be associated with more effective long-term outcomes, according to a report published Online First by *Archives of Internal Medicine*.

AF affects approximately 2.3 million Americans and 250,000 Canadians, and the condition has a complex therapy that may involve rate control agents, antiarrhythmic drugs, anticoagulant drugs and/or ablative techniques (use of a [catheterization procedure](#) to eliminate the anatomic source of the [atrial fibrillation](#)), according to study background.

"Controversy continues concerning the choice of rhythm control vs. rate control [treatment strategies](#) for atrial fibrillation (AF). A recent clinical trial showed no difference in five-year mortality between the two treatments. We aimed to determine whether the two strategies have similar effectiveness when applied to a general population of patients with AF with longer follow-up," the authors write as background.

Raluca Ionescu-Ittu, Ph.D., of the Harvard School of Public Health, Boston, and colleagues used population-based databases from Quebec,

Canada, from 1999 to 2007 to select patients 66 years or older hospitalized with AF who did not have AF-related drug prescriptions in the year before they were hospitalized but received one within seven days of discharge.

"We found that with increasing follow-up time the mortality among the patients who newly initiated rhythm control therapy gradually decreased relative to those who initiated rate control drugs, reaching 23 percent reduction after eight years of follow-up," the authors comment.

The researchers note that recent clinical trials comparing the two treatments "concluded that there are no differences in mortality between the two treatment strategies."

"For the first four years after treatment initiation, our results in a population-based sample are similar to the results from the recent [clinical trials](#). In addition, we found a tendency toward a long-term protective effect for rhythm control drugs. The long-term benefits of rhythm control drugs in AF found in this study need to be assessed in future studies," the researchers conclude.

In an editorial, Thomas A. Dewland, M.D., and Gregory M. Marcus, M.D., M.A.S., of the University of California, San Francisco, write: "How do we best interpret this unexpected result given contrary evidence from prior randomized trials?"

"Although the findings of Ionescu-Ittu et al are provocative, they are insufficient to recommend a universal rhythm control strategy for all patients with AF. Randomization is a powerful tool that unfortunately cannot be reliably reproduced with statistical modeling," the authors conclude.

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