Heart failure patients who could possibly benefit from a newer class of drug to lower their heart rate were more likely to take the medication if it was prescribed before hospital discharge rather than in a follow-up doctor's visit, according to preliminary research presented at the American Heart Association's Quality of Care and Outcomes Research Scientific Sessions 2019, a premier global exchange of the latest advances in quality of care and outcomes research in cardiovascular disease and stroke for researchers, healthcare professionals and policymakers.

"The hospitalisation rate in heart failure patients is quite high despite a number of good therapies, yet we have ivabradine, a relatively new therapy that can reduce hospitalisation, and we still aren't using it to the extent possible," said Robert Mentz, M.D., lead author of the study and an associate professor of cardiology at Duke University Medical Center in Durham, N.C.

When people have heart failure and less than 35 percent of the blood in the heart is pumped out with each contraction (a reduced ejection fraction), having a lower heart rate (less than 70 beats per minute) is associated with better outcomes. Current standard care for heart failure with reduced ejection fraction is to use beta-blocker medications in most patients. Beta-blockers can lower heart rate and have many other beneficial effects that improve outcomes for patients with reduction ejection fraction. Research has shown that adding ivabradine, which works in a different way to lower heart rate, may also be helpful in those patients who have a faster heart rate despite being on the highest dose of beta-blockers they can tolerate.

In 2016, the American Heart Association and the American College of Cardiology issued a focused update to heart failure guidelines to reflect newer medication options, including ivabradine, more recently proven successful in helping improve outcomes for heart failure patients, including reduced re-hospitalisation.

The current study, called PRIME-HF, evaluated 104 patients (average age 57.5 years, 36 percent women, 64 percent African American) who had been hospitalised at one of 23 U.S. hospitals with worsening heart failure and were appropriate candidates to receive ivabradine. In the randomised, open-label study, researchers compared rates of medication use six months later between those whose hospital physicians were asked to initiate ivabradine prior to discharge and those whose physicians were instructed to provide usual care with consideration of starting the medication during follow-up visits.

Six months after hospitalisation, the researchers found that patients whose physicians were asked to initiate ivabradine prior to discharge:


- Were far more likely to be using ivabradine (40.4 percent vs. 11.5 percent);
- Had a greater reduction in heart rate (10 bpm vs. 0.7 bpm, average heart rate 77 bpm vs 86 bpm);
- Had not reduced their dose of beta-blockers; and
- Did not develop abnormally low blood pressure or heart rate.

"This was a small study, but it provides important evidence of the safety and efficacy of starting this medication in the hospital period," Mentz said. "There's often a tendency to just say, 'Let's wait until we see the patient back in the clinic in a couple of weeks after hospital discharge.' But the reality is that so often things are incredibly busy in the outpatient setting and many patients never get started on the right medications if we delay. Our message is to act now and help patients get the greatest benefits as early as possible."

Patients in both groups encountered barriers to obtaining ivabradine, with 30.6 percent having trouble getting their initial prescription and 58.1 percent having trouble getting ivabradine at some point during the six-month study. Frequent barriers were high price, insurers declining to pay, and physicians deciding to stop the drug.

"When we designed the trial, we thought that more people would be using this medication in routine practice. The reality has been that adoption of the therapy has been very slow and only a fraction of potential patients are receiving it." Mentz said. "Some of this is related to cost while some is also related to providers' lack of familiarity with the medication and how best to use it. We are looking into how we can better support the early adoption of novel therapies in patients with heart failure to improve their outcomes."

Because of slow recruitment, the study was terminated early, so the sample is too small to assess outcomes such as survival and re-hospitalisation.

Source: AHA
Image Credit: iStock

Published on: Wed, 10 Apr 2019