

Intravenous iron reduced rehospitalization risk in people with heart failure

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Patients who were hospitalized with acute heart failure and had iron deficiency were less likely to return to the hospital if given intravenous iron replacement, according to late-breaking research presented today at the American Heart Association's Scientific Sessions 2020. The virtual meeting is Friday, November 13—Tuesday, November 17, 2020. The manuscript of this study is simultaneously published today in *The Lancet*.

Study participants were stabilized after an episode of acute [heart](#) failure and given intravenous ferric carboxymaltose, an iron replacement therapy, at hospital discharge.

"Iron deficiency is common in patients with heart failure, and it is an [independent risk factor](#) for hospital admission and death," said Piotr Ponikowski, M.D., Ph.D., head of the department of heart diseases at Wroclaw Medical University in Wroclaw, Poland, and lead author of the study. "We tested the hypothesis that correcting iron deficiency with ferric carboxymaltose in patients admitted for an episode of acute heart failure and who have iron deficiency is effective in reducing the risk of recurrent hospitalization and cardiovascular death."

The AFFIRM-AHF trial enrolled 1,108 patients in 15 countries who were being discharged after a hospitalization for acute heart failure and found to have iron deficiency during their hospital stay. The participants' average age was 71, and 56% were men, with average heart ejection fraction measures of 33%. Ejection fraction measures the amount of blood pumped out by the heart with each contraction. A normal ejection

fraction is between 50% and 70%.

After their heart condition was stabilized, patients received either intravenous ferric carboxymaltose or a placebo during the following 24 weeks, dosed according to the level of iron deficiency.

The analysis found significantly fewer hospital readmissions due to heart failure among the patients treated with intravenous ferric carboxymaltose compared to those who received the placebo. After 52 weeks, patients who received iron supplementation were 26% less likely to be re-admitted to the hospital for heart failure. This result was achieved with only one or two injections in 80% of the patients in the ferric carboxymaltose group.

Results for reduced risk of hospitalization were statistically significant; however, when the researchers looked at the combined goal of reducing hospitalizations and death, the results were not statistically different.

"This is the first study demonstrating the benefits of iron supplementation initiated in stabilized patients hospitalized for [acute heart failure](#), and only two doses were needed in the vast majority of patients," Ponikowski said. "Health care professionals should screen [patients](#) with [heart failure](#) for the presence of iron deficiency, and intravenous iron should be considered for those with [iron deficiency](#) and ejection fraction of 50% or lower."

More information: Session: LBS.01 - Heart Failure and Atrial Fibrillation: Vitamins, Minerals, Nutrients, and More, [www.abstractsonline.com/pp8/?& ... 9#!/9144/session/828](http://www.abstractsonline.com/pp8/?&...9#!/9144/session/828)

Provided by American Heart Association

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