

HEART FAILURE

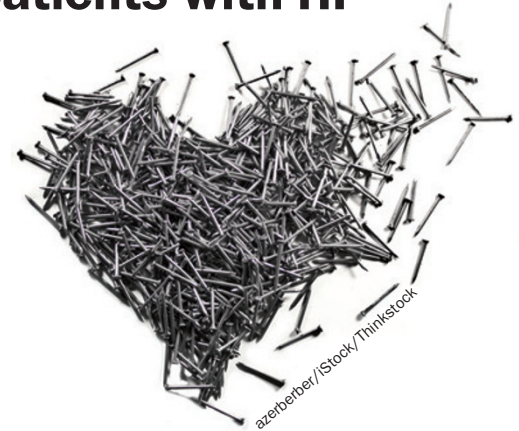
Long-term iron therapy is beneficial in patients with HF

The CONFIRM-HF trial, published in the *European Heart Journal* in association with the ESC Congress 2014, has demonstrated the benefit and safety of long-term intravenous iron therapy in patients with HF. Iron deficiency is a common nutritional problem recognized in ESC guidelines as a frequent comorbidity in patients with stable heart failure (HF) regardless of ejection fraction. Therapeutic approaches to rectify iron levels in patients with HF have been explored previously.

CONFIRM-HF was a multicentre, placebo-controlled, double-blind trial in which 304 patients with HF, left ventricular ejection fraction $\leq 45\%$, elevated natriuretic peptide levels, and iron deficiency were randomly allocated to treatment with ferric carboxymaltose as an iron supplement ($n = 152$) or saline ($n = 152$), administered intravenously for 52 weeks. The primary end point was the change in the 6 min walking test (6MWT) distance from baseline to week 24; secondary end points included changes in patient global assessment, NYHA class, 6MWT distance, fatigue scores, health-related quality of life, and rate of hospitalization for worsening HF up to week 52.

Patients who received ferric carboxymaltose therapy showed significantly prolonged 6MWT distance at week 24 when compared with patients who received saline (33 ± 11 m; $P = 0.002$). Importantly, this effect was maintained at week 52 (36 ± 11 m; $P < 0.001$), suggesting a long-term benefit of iron therapy in these patients. Other secondary outcomes were similarly improved: in particular, the risk of hospitalization for worsening HF (which is associated with poor outcomes and reduced quality of life) was significantly reduced in patients who received ferric carboxymaltose (HR 0.39, 95% CI 0.19–0.82, $P = 0.009$). These encouraging results were consistent across patients with or without anaemia, confirming previous findings that anaemia does not have a role in the deleterious effects of iron deficiency in patients with HF.

Even though intravenous ferric carboxymaltose has shown remarkable safety and efficacy in correcting iron levels in patients with HF and iron deficiency, whether oral iron therapy could have similar beneficial effects is an arising question. A new trial (IRONOUT) is planned to evaluate this possibility.



The FAIR-HF trial previously showed beneficial effects of intravenous iron therapy on functional status, exercise intolerance, and quality of life over a 6-month period in patients with HF and iron deficiency. With a longer follow-up period of 1 year, the CONFIRM-HF trial now supports a stronger recommendation for correcting iron deficiency in these patients.

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Original article Ponikowski, P. et al. Beneficial effects of long-term intravenous iron therapy with ferric carboxymaltose in patients with symptomatic heart failure and iron deficiency. *Eur. Heart J.* doi:10.1093/eurheartj/ehu385