

Are We Following AHA/ACC Guidelines for Screening and Managing Iron Deficiency in Heart Failure Patients? A Quality Improvement Project

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Background: Anemia is independently associated with increased mortality and hospitalizations in patients with heart failure (HF). Studies show that iron deficiency (ID) in patients with HF is associated with reduced exercise capacity, impaired quality of life (QoL), and poor prognosis independently of anemia and LVEF. Our study aims to assess resident competency with guideline-directed management of ID in HF, enhance adherence to guidelines, and improve outcomes.

Methods: Retrospective chart review of randomly selected sample of 150 patients from the ACC clinic from 1/2017-1/2022 was performed. All patients aged 18-75 with NYHA class II-IV symptoms were included and any patient with significant liver disease (i.e.) cirrhosis, ESRD, and/or active malignancy were excluded. Resident competency was assessed with a short quiz, followed by an evidence-based medicine solution guide for review.

Results: A multiple choice and multiple answer resident competency survey was sent via email and QR code to Internal Medicine residents. Of the survey responses, only 25.9% correctly identified ID, 22% correctly identified NYHA class, 29.2% correctly identified the need for iron supplementation at any NYHA class for ID, 6.25% identified IV iron alone as the preferred therapy, 33.1% identified benefits of IV iron therapy, and 43.8% were aware IV iron is available at UH. All survey participants reviewed the evidence-based medicine solution guide.

Conclusions: Our study suggests there are serious gaps in the evidence-based diagnosis and management of ID in HF. This presents an important area for improvement in outcomes for patients with ID in HF. Our survey results show that while many of our trainees mean well and are proactive in the management of their patients, many lack understanding of current evidence-based management for ID in HF. After reviewing the evidence-based medicine solution guide, our trainees are better equipped to recognize, manage, and improve outcomes of ID in HF.