

Guideline Recommendations

Iron Deficiency in HF	2017 ACC/AHA/HFSA Focused Update of the U.S. Guideline for Management of HF	2021 ESC Guidelines for the Diagnosis and Treatment of Acute and Chronic HF	
Target HF population	NYHA functional class II and III	Symptomatic patients with LVEF <45% and iron deficiency, defined as serum ferritin <100ng/ml or serum ferritin 100-299 ng/ml with TSAT <20%	Symptomatic patients with LVEF <50% and iron deficiency defined as serum ferritin <100ng/ml or serum ferritin 100-299 ng/ml with TSAT <20%
Recommendations	IV iron replacement might be reasonable to improve functional status and QOL	IV iron supplementation with ferric carboxymaltose should be considered in order to alleviate HF symptoms, improve exercise capacity and QOL	IV iron supplementation with ferric carboxymaltose should be considered to reduce the risk of hospitalization
Class of recommendation	IIb	IIa	IIa
Level of recommendation	B	A	B

2017 AHA/ACC/HFSA Focused Update -Guidelines in Management of HF

III. No Benefit	B-R	In patients with HF and anemia, erythropoietin-stimulating agents should not be used to improve morbidity and mortality
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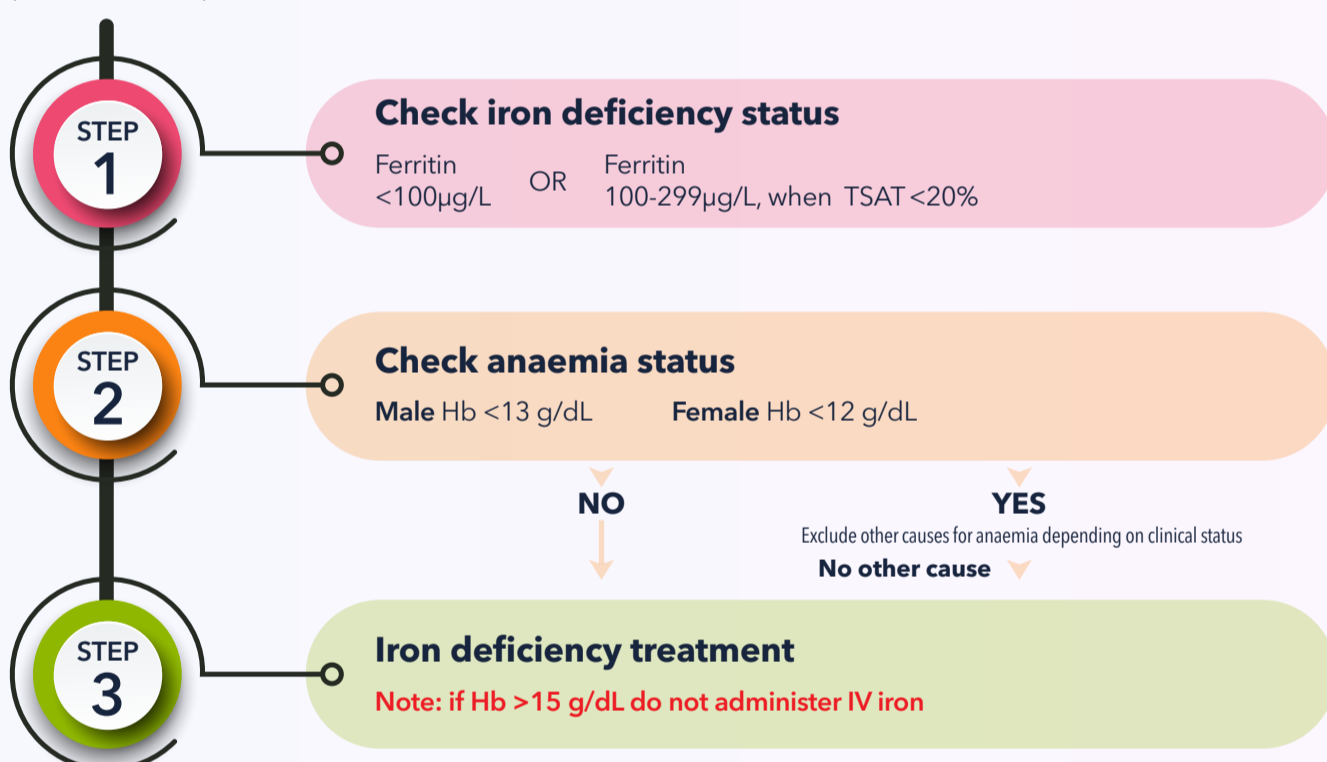
2021 Update to the 2017 ACC Expert Consensus Decision Pathway for Optimization of Heart Failure Treatment

Guidance on appropriate Iron deficiency management option in patients with HFrEF

Comorbidity	Association With Heart Failure Outcomes	Clinical Trial Evidence for Modulating Comorbidity	Suggested Action
Iron deficiency	Strong	Intermediate	Consider intravenous iron replacement for symptom improvement

Algorithm for screening/diagnosis and treatment/follow-up of iron deficiency in patients with chronic heart failure.

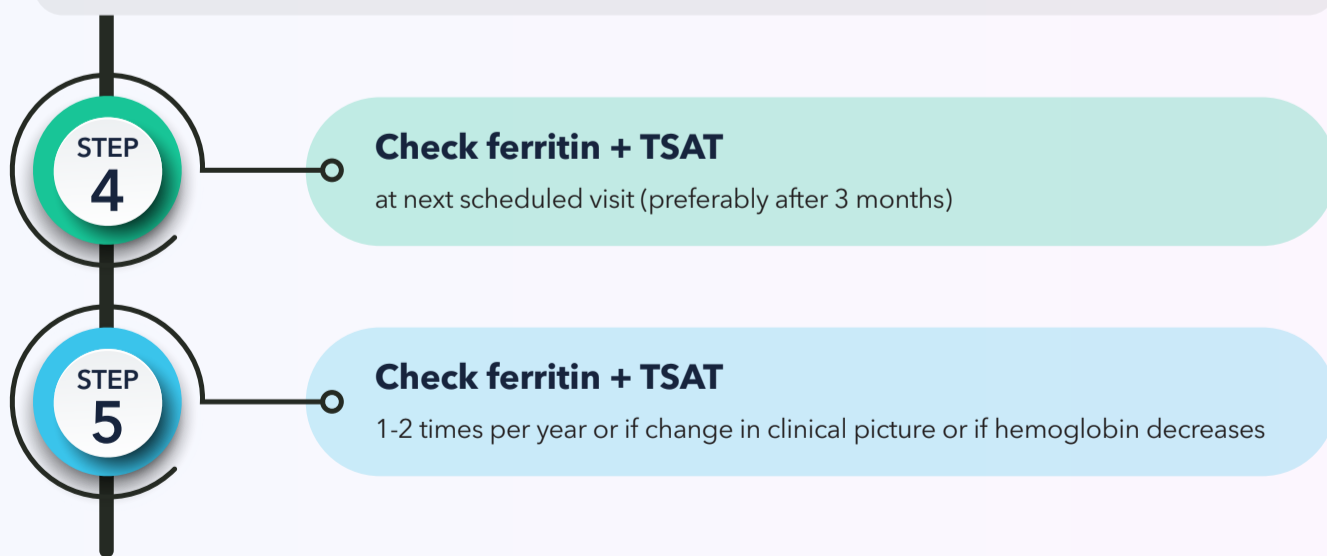
Chronic HFrEF (NYHA II-IV)



Consider single doses of ferric carboxymaltose (**500-100 mg iron**) to correct iron deficiency*

Calculate total iron need using the table:

Hemoglobin		Patient body weight		
g/dL	mmol/L	<35 kg	35 kg to <70 kg	≥70 kg
<10	<6.2	500 mg	1500 mg	2000 mg
10 to <14	6.2 to <8.7	500 mg	1000 mg	1500 mg
≥14 to 15	≥8.7 to 9.3	500 mg	500 mg	500 mg



Hb = hemoglobin, HF = heart failure, HFrEF = heart failure with reduced ejection fraction, FCM = ferric carboxymaltose, NYHA = New York Heart Association Functional Classification, QOL = quality of life, TSAT = transferrin saturation

REFERENCES:

- Yancy, Clyde W., et al. "2017 ACC/AHA/HFSA focused update of the 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America." *Journal of the American College of Cardiology* 70.6 (2017): 776-803.
- Ponikowski, Piotr, et al. "2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure." *Kardiologia Polska (Polish Heart Journal)* 74.10 (2016): 1037-1147.
- M, Adamo M, Gardner RS, Baumbach A, Böhm M, et al. 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: Developed by the Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC) With the special contribution of the Heart Failure Association (HFA) of the ESC. *European Heart Journal*. 2021. doi: 10.1093/eurheartj/ehab368
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