

Improving Post-Discharge Iron Monitoring in Heart Failure Patients Treated with Intravenous Iron: A Closed-Loop Audit



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BACKGROUND

- Functional iron is vital for haemoglobin, cardiac myoglobin, and cellular energy metabolism.
- Intravenous iron therapy improves quality of life, exercise tolerance, hospitalisation rates, and mortality in Heart Failure with reduced Ejection Fraction (HFrEF)
- ESC 2021 guidelines define iron deficiency as:
 - Haemoglobin <150g/L, with
 - Ferritin <100µg/L, OR Transferrin Saturation (TSAT) <20% if ferritin is 100-299µg/L
- Guidelines recommend rechecking iron parameters 4-16 weeks post-IV iron

AIMS

To determine whether post-discharge follow-up of iron status in patients with HFrEF receiving IV iron meets ESC guideline standards, and to assess the impact of educational intervention.

METHODS

Retrospective audit of HFrEF inpatients receiving IV iron. Data collected from discharge summaries and electronic records.

- Focus:
 - Documentation of follow-up plans
 - Whether iron studies were repeated 4-16 weeks post-discharge
- Cycle 1:** 01/08/2023–31/07/2024. Total patients: 75 (Median age: 79)
- Intervention:** Ward posters, awareness sessions, team briefings, reminder emails, and Heart Failure nurse involvement.
- Cycle 2:** 01/03/2025–15/06/2025. Total patients: 48 (Median age: 77)
- Statistical analysis with chi-squared test

CONCLUSIONS

- A low-cost, educational intervention significantly improved documentation and follow-up of iron status in HFrEF patients
- Engaging GPs and heart failure nurses ensures sustainability and continuity of care
- Ongoing work will focus on embedding this change into routine discharge practice
- Future work involves exploring the use of necessary iron infusions following repeat iron studies and the associated clinical benefit to patients

References

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RESULTS

