

COMPARISON OF FERRIC CARBOXYMALTOSE ADMINISTRATION REGIMENS ACCORDING TO HAEMOGLOBIN

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BACKGROUND AND IMPORTANCE

- **Ferric carboxymaltose (FCM)** is indicated when rapid iron replenishment is required.
- Maximum cumulative weekly dose: **1000 mg**.
- Medium-term effects on haemoglobin (Hb) are well characterized, short-term response remains **underexplored**.

AIM AND OBJECTIVES

To evaluate different **FCM administration** protocols according to Hb changes at days 1 and 5-7 post-infusion, and to assess associations between patient-related covariates and **Hb increase (Δ Hb)** compared to baseline value.

MATERIALS AND METHODS

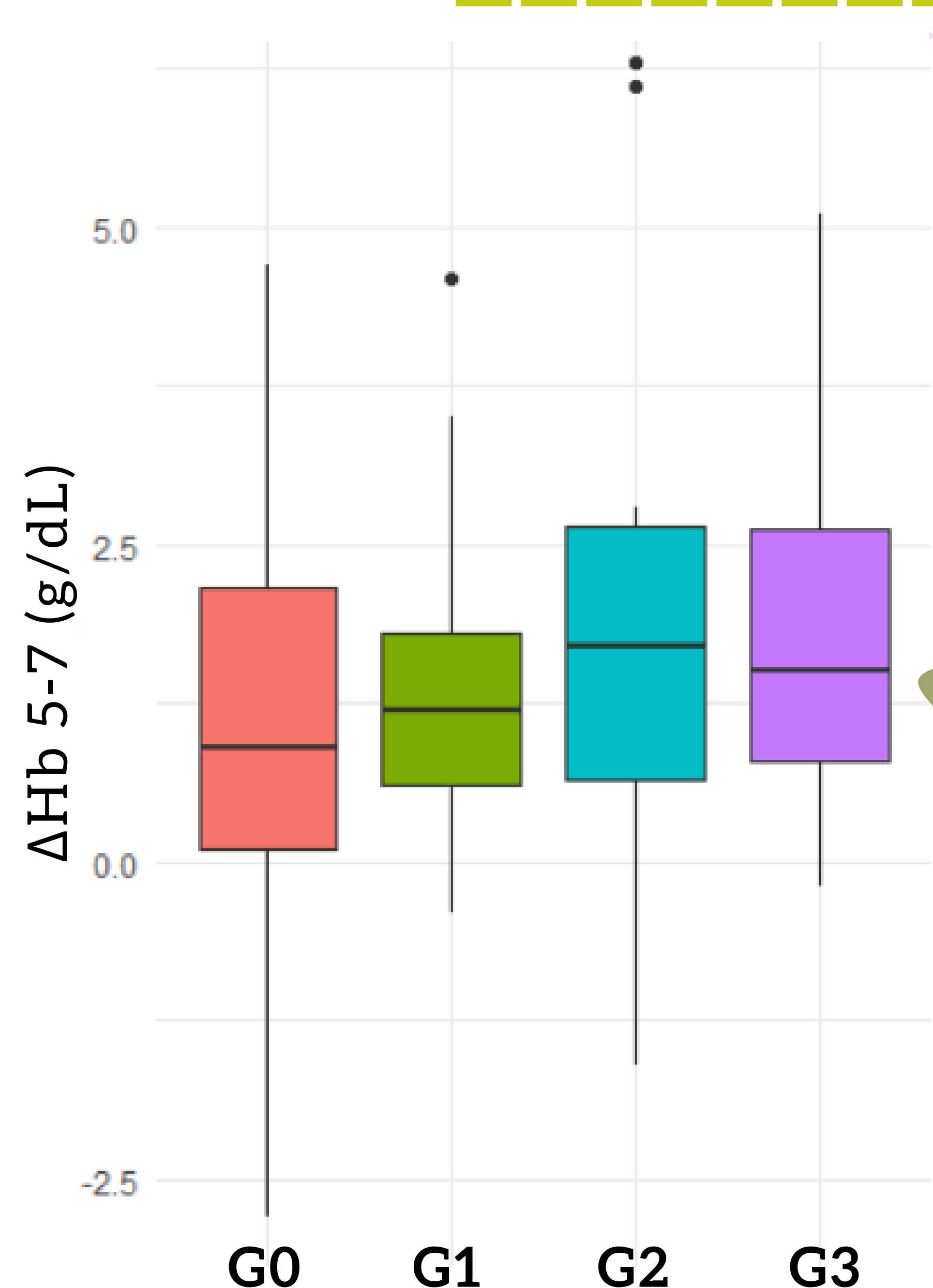
Variables measured

Sex	Hb day1 post infusion (Hb1)
Age	Bleeding presence
Δ Hb	Postoperative status
Transfusions	Hb day5-7 post infusion (Hb5-7)
Total dose	Baseline Hb (Hb0)

Groups, according to administration protocols

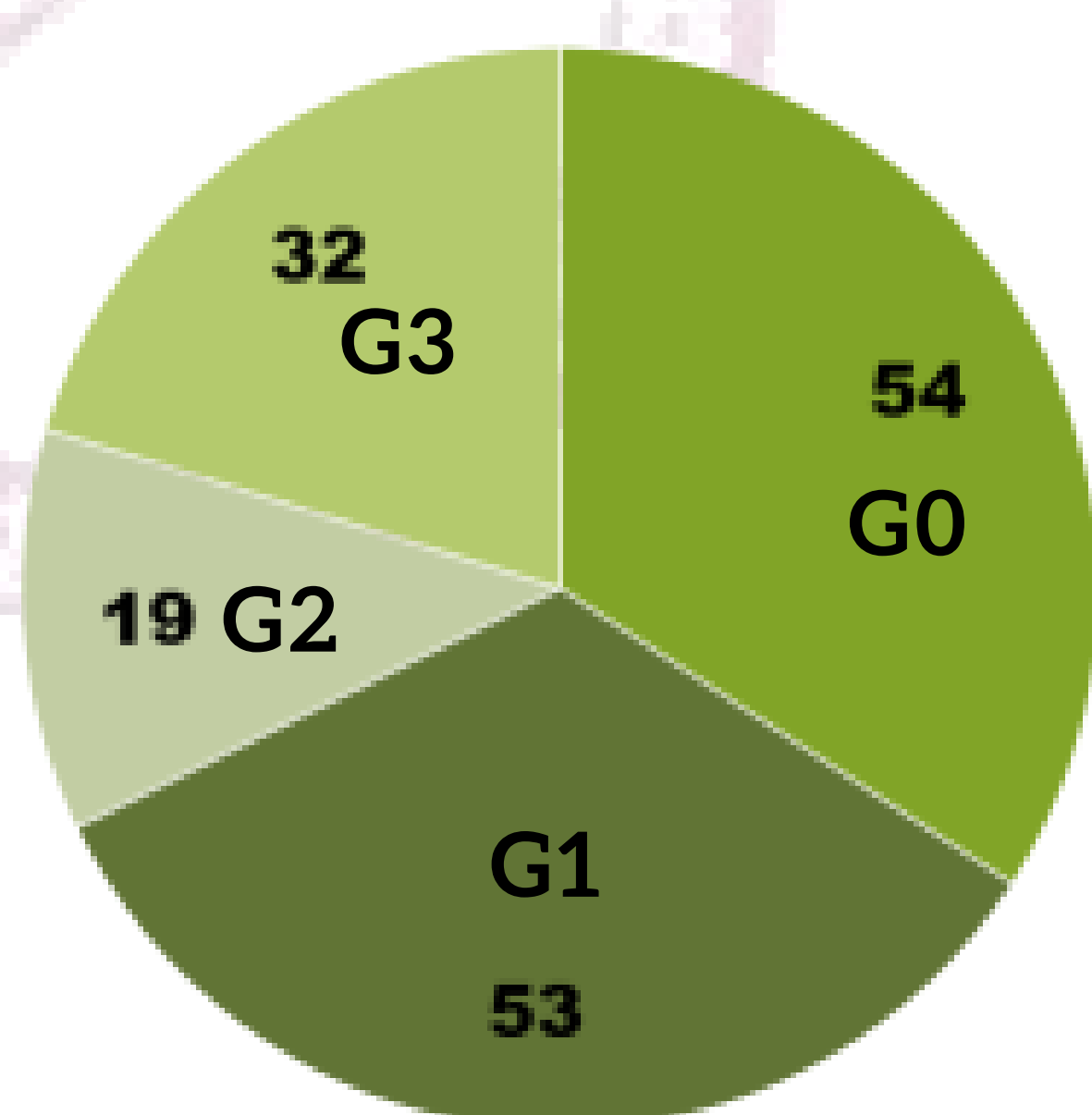
G0: 1000mg single dose	G1: 500mg single dose
G2: 500+500 mg consecutive days	G3: 500+500 mg non-consecutive days

- Retrospective analysis between January to August 2025.
- Data obtained from Orion Clinic® and Gestlab®, analysed with Rstudio®.
- Missing data addressed using multiple imputation by chained equations.
- Δ Hb was analysed using **ANCOVA**, adjusting for variables.
- Estimated marginal means were compared with **Tukey's adjustment (TK)**.



RESULTS

Groups



Patients	158 (58% ♀)
Age (years)	66 ± 20
Average Hb0	8.69 g/dL
Bleeding (patients)	113
Post operative (patients)	61
Transfusion (patients)	58

- **No differences in Δ Hb** at day 1 or 5-7 between groups ($p > 0.05$)
- Studying all 158 patients, it was observed that **Hb0** was **inversely** associated with **Δ Hb** in days 1 and 5-7 ($p < 0.001$).
- After the analysis of 113 **bleeding** patients, it appeared to be **positively** associated with greater **Δ Hb** (day1: $p = 0.009$; day5-7: $p = 0.011$).
- No other covariates showed association with Δ Hb

CONCLUSION AND RELEVANCE

- **Dose fractionation** may not provide additional short-term benefit in terms of Hb recovery.
- **Bleeding** was related with greater Δ Hb.
- **Lower Hb0** was associated with **larger Δ Hb** after IV iron treatment.
- **Limitations** (patient follow-up, bleeding and retrospective data) may influence results. Future studies could optimize treatment strategies.

ACKNOWLEDGEMENTS

To my always supportive sevice



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