

Comparison of patient haemoglobin outcomes with weekly iron administration vs per session iron administration in adult haemodialysis patients

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Introduction

Anaemia treatment optimization still remains a priority in haemodialysis (HD) patients due to its both health and financial implications.

The use of a more aggressive iron therapy has been proposed in order to reduce ESA consumption but high intravenous iron therapy dosing is also associated with complications, and its long-term safety is not adequately known.

Objectives

- ▶ To assess Hb levels and ESA consumption with small iron doses per treatment (SIDT).
- ▶ To compare Hb results in clinics with SIDT versus weekly iron administration (WIA).

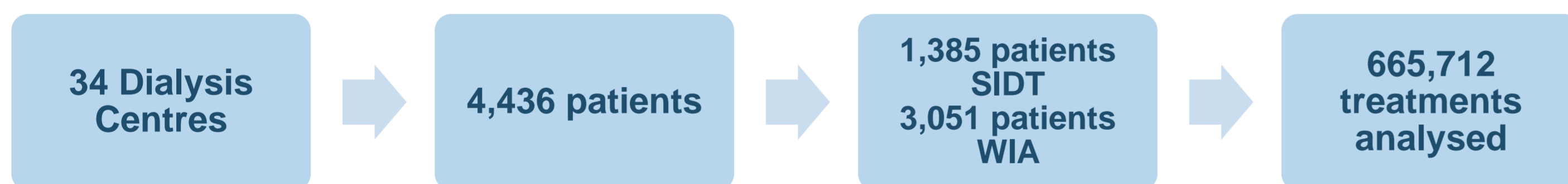


Methods

The methodology used was observational and retrospective. Patient data were recorded in a database from which anonymous data were extracted, refined, and examined regarding all patients, who underwent OL-HDF for 12 months, from January 2013 to December 2013.

The selected participants had to meet the following inclusion criteria: patients with a dialysis vintage of at least 3 months, receiving ESA therapy at least once a month and IV iron therapy.

We compared the use of ESA and iron and Hb results in 34 clinics on the total of 4,436 patients. In this analysis it was considered 8 clinics with SIDT (1,385 patients) versus weekly iron administration in the others (3,051 patients). We used the Wilcoxon-Mann-Whitney test.



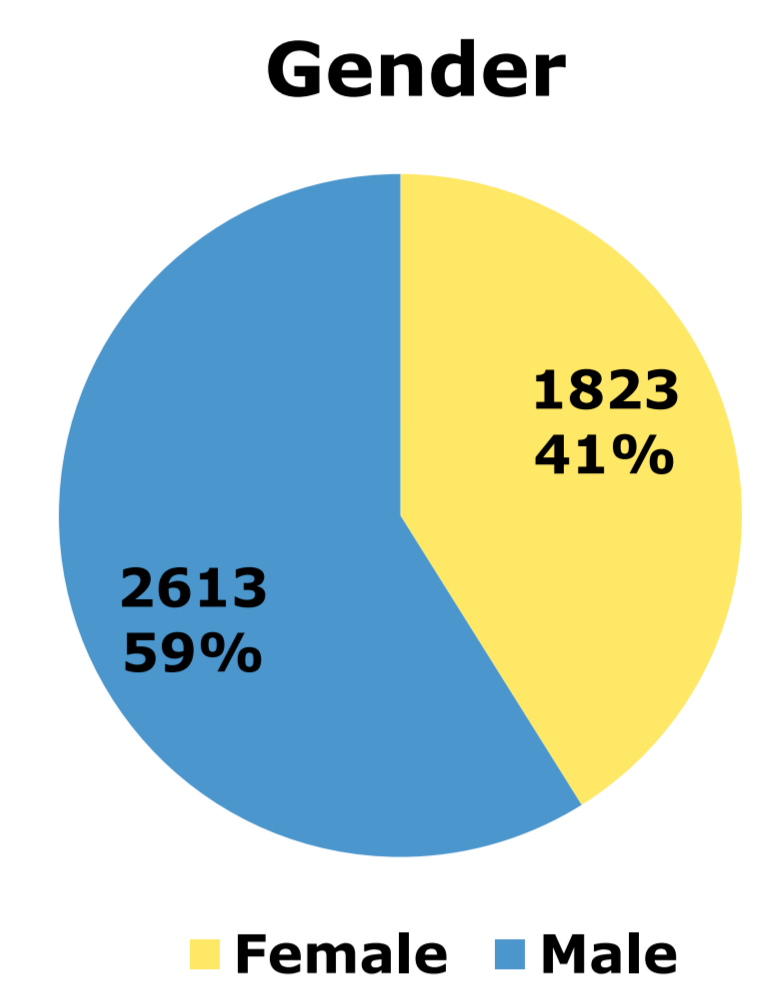
Conclusion

Our study showed that the haemodialysis centres in which the patients were submitted to intravenous small iron doses per dialysis session (20-50mg), obtained higher hemoglobin values with less consumption of iron and erythropoiesis stimulating agents, when compared to the centres in which patients received a single iron dose per week (100mg).

Results

Average age was 69±14 years (range: 17 to 100), 58.9% were men.

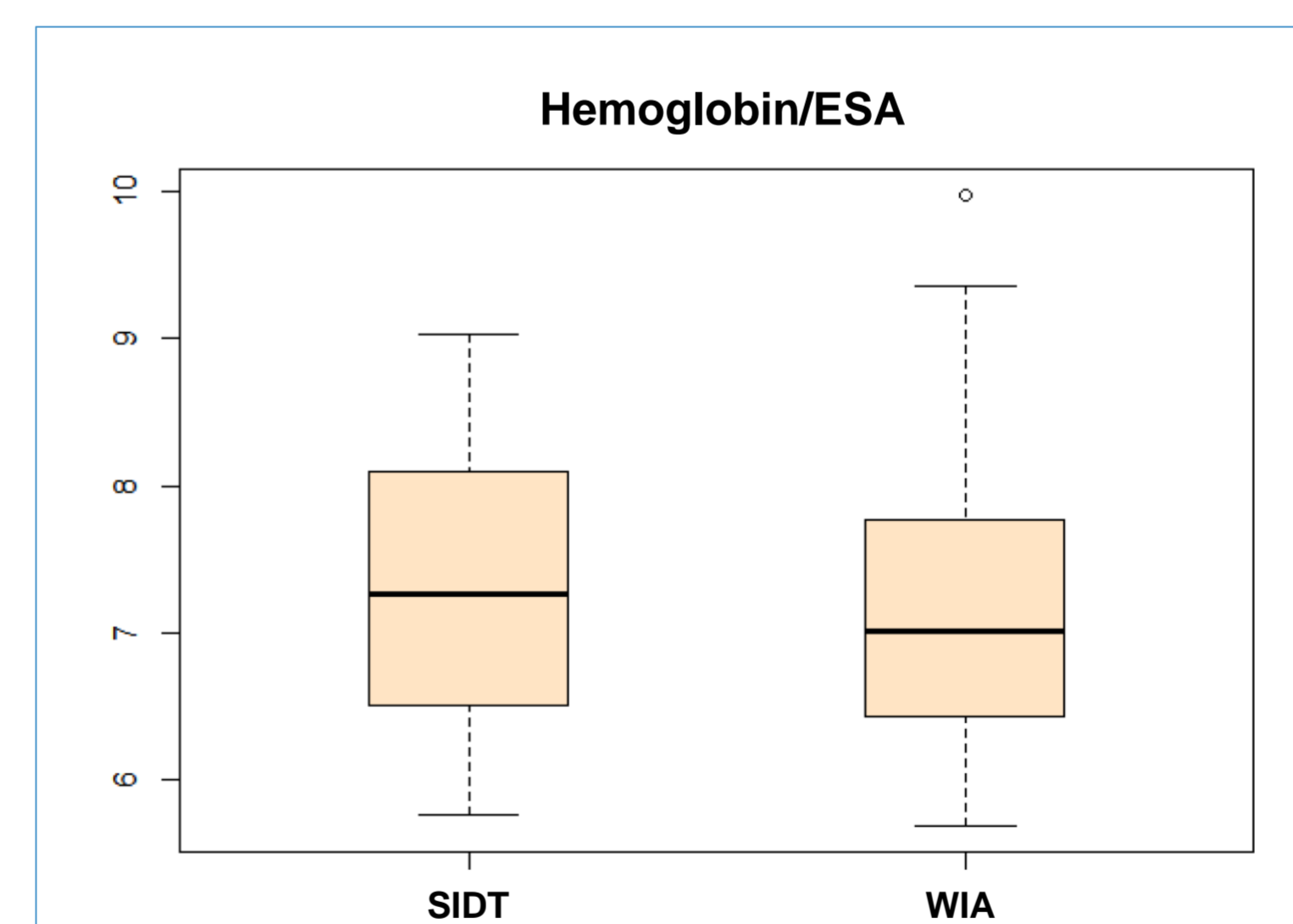
Evaluation of 665,712 treatments revealed the following results between the two groups (SIDT vs WIA):



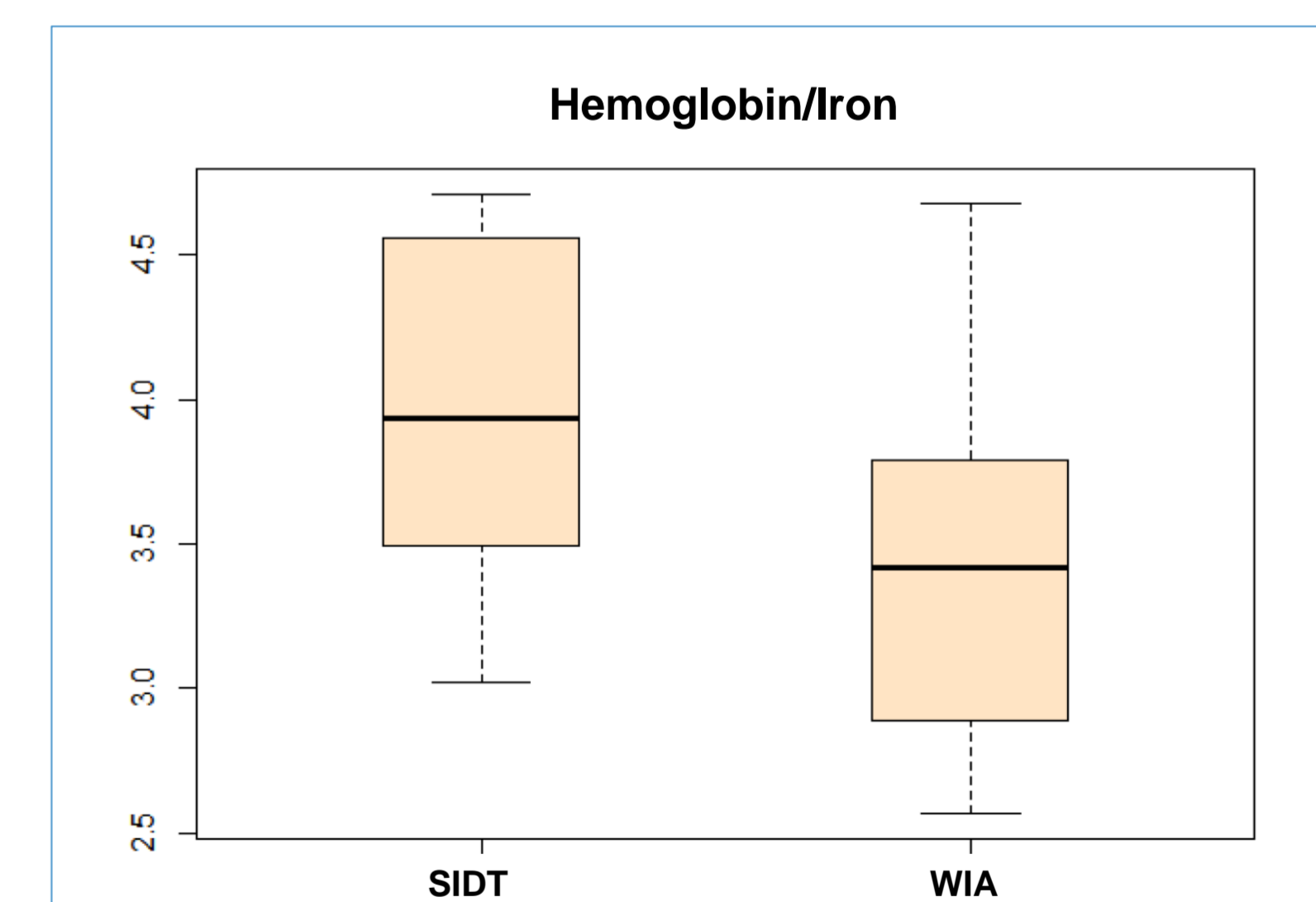
Average	SIDT	WIA	p
ESA dose (µg/kg/month)	1.53±1.55	1.58±1.54	p<0.001
Iron dose (mg/kg/month)	2.81±2.16	3.16±2.34	p<0.001
Ferritin (mg/L)	552±298.50	573.94±328.73	p=0.017

The clinics with small iron doses per treatment, obtained higher average Hb values (7.32±1.104 g/dL) per unit of ESA (µg/kg/month) as compared to the clinics with weekly iron administration (7.21±0.073 g/dL), despite the non-statistical significance (p=0.827). See Graph 1.

The clinics with small iron doses per treatment, obtained better average Hb results (3.96±0.629 g/dL) per unit of iron (mg/kg/month) as compared to the clinics with weekly iron administration (3.45±0.655 g/dL). This result was statistically significant (p=0.058, p<0.10). See Graph 2.



Graph 1



Graph 2

References

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