THE PLANET

Original Article

Treatment Response and Effectiveness of Intravenous Ferric Carboxymaltose Versus Oral Iron in Postpartum Iron Deficiency Anaemia

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ARTICLE INFO

Received: 09 September 2026
Accepted: 15 September 2026
Published Online: 23 September 2026

DOI: 10.5281/zenodo.22920231

Volume: 10, Number: 2, Page: 626-631

e-ISSN: 2789-5912
ISSN: 2617-0817

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ABSTRACT

Background: Iron deficiency anaemia (IDA) affects up to 50% of postpartum women globally, leading to fatigue, cognitive impairment, and delayed recovery. Oral iron, the standard treatment, often results in poor compliance and slow recovery due to gastrointestinal side effects. Ferric carboxymaltose (FCM), an intravenous iron formulation, has emerged as an alternative, offering rapid haemoglobin improvement and a favourable safety profile with single-dose administration. However, limited data exist on FCM's efficacy specifically in postpartum women. **Objective:** To compare the effectiveness of intravenous ferric carboxymaltose with oral iron in the treatment of iron deficiency anaemia in women after childbirth. **Methods & Materials:** This randomized controlled trial (RCT) was conducted in the Department of Obstetrics and Gynecology, Institute of Child and Mother Health (ICMH), Matuail, Dhaka. The sampling method was random selection based on patient availability. Data were collected from women aged 18-35 years. Patients diagnosed with postpartum iron deficiency anaemia, confirmed by haemoglobin (Hb) levels <10 g/dL and serum ferritin levels below 30 ng/mL, were included. Group I (n=38) received a single dose of intravenous FCM, while Group II (n=38) received oral iron. The outcomes of FCM and oral iron in treating postpartum IDA were compared between the groups. Descriptive and inferential analyses were performed using SPSS v26, with a p-value <0.05 considered statistically significant. **Results:** FCM group demonstrated a significantly greater increase in haemoglobin levels compared to the oral iron group. At baseline, haemoglobin levels were similar (8.45 g/dL vs. 8.57 g/dL). By the 2nd week, haemoglobin increased to 10.29 g/dL in the FCM group compared to 9.48 g/dL in the oral group, and by the 6th week, haemoglobin levels reached 12.65 g/dL in the FCM group and 11.92 g/dL in the oral iron group (p<0.001). Ferritin levels also increased significantly higher in the FCM group (225.02 ng/mL vs. 144.23 ng/mL at 2 weeks), and while they declined by the 6th week, they remained higher than in the oral iron group (134.71 ng/mL vs. 101.23 ng/mL). The failure to achieve target haemoglobin levels was lower in the FCM group (5.3% vs. 23.7%), with an odds ratio (OR) of 5.58, indicating a significantly higher failure rate in the oral iron group (p=0.022). **Conclusion:** Intravenous ferric carboxymaltose is more effective than oral iron in the management of postpartum iron deficiency anaemia.

Keywords: *Postpartum anaemia, iron deficiency anaemia, ferric carboxymaltose, oral iron, effectiveness.*

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INTRODUCTION

Iron deficiency anaemia (IDA) remains one of the most common complications of the postpartum period, arising from a reduction in red blood cell mass that lowers the blood's oxygen-carrying capacity and can compromise maternal recovery and well-being.[1] Reported rates of postpartum anaemia (PPA) vary considerably between settings, from roughly 50% to 80% of women in different populations,[2,3] and even within a single country the range can be striking; in India, prevalence has been documented from 26.5% in rural coastal Karnataka to as high as 94.6% in rural Rajasthan, against a national average near 65%.[4]

Postpartum IDA is usually confirmed through a full blood count together with serum ferritin and, where available, soluble transferrin receptor, which remain reliable markers of iron status in the weeks after delivery.[5] By convention, PPA is diagnosed when haemoglobin (Hb) falls below 120 g/L, with levels under 100 g/L regarded as clinically significant; Hb typically reaches its lowest point around 48 hours postpartum, reflecting the combined effect of delivery-related blood loss and pre-existing iron deficiency.[6] The World Health Organization defines postpartum anaemia more narrowly, as an Hb below 10 g/dL during this period.[7]

In developing countries, the high burden of PPA reflects an overlapping set of causes: antenatal iron deficiency, blood loss at delivery, and infections such as malaria and intestinal parasites.[8,9,10] Haemoglobinopathies and the broader effects of poor socioeconomic conditions, inadequate nutrition, limited education, weak antenatal care, and delivery complications add further to this burden.[11] Young maternal age, postpartum haemorrhage, and poor adherence to antenatal iron and folic acid supplementation add further to this risk.[12]

The consequences extend well beyond laboratory values. Reduced oxygen delivery produces palpitations, dizziness, fatigue, and breathlessness that interfere with daily functioning, and PPA has been linked to postpartum depression, chronic fatigue, and cognitive impairment that can affect maternal-infant bonding.[13,14,15] Untreated anaemia has also been associated with shorter breastfeeding duration, low infant birth weight, developmental delay, and a greater risk of infection and haemorrhage during recovery.[13,14,15]

Oral iron, typically ferrous sulfate, gluconate, or fumarate, has long been the first-line treatment because it is inexpensive and simple to administer,[16] but gastrointestinal side effects such as nausea, constipation, and abdominal discomfort frequently undermine adherence, particularly in women already

coping with the physical demands of the postpartum period.[17] Absorption itself is inconsistent, reduced by calcium, tannins, and phytates and by conditions such as coeliac disease, while vitamin C improves uptake; the prolonged courses needed to rebuild iron stores are also difficult to sustain where follow-up care is limited.[18]

Intravenous ferric carboxymaltose (FCM) has emerged as an alternative for women who cannot tolerate or do not respond adequately to oral therapy. By bypassing the gut, FCM allows rapid, single-infusion replenishment of iron stores with a generally favourable safety profile.[19] A growing body of trial evidence indicates that FCM raises haemoglobin more quickly than oral iron.[20,21,22] It has also been reported to cause fewer gastrointestinal side effects and to be better tolerated overall.[1,23,24] These advantages appear to translate into improved adherence and higher patient satisfaction across settings.[25]

Given how widespread PPA remains, especially across low- and middle-income settings, FCM holds real promise for improving maternal recovery, yet comparative data specific to postpartum women are still limited, and questions around cost-effectiveness and longer-term maternal and neonatal outcomes remain largely unanswered.[1] This study was therefore designed to compare the effectiveness of intravenous FCM with oral iron in treating iron deficiency anaemia among women following childbirth.

METHODS & MATERIALS

This randomized controlled trial was conducted in the Department of Obstetrics and Gynecology, Institute of Child and Mother Health (ICMH), Matuail, Dhaka, over a 12-month period from July 2023 to June 2024. The study population comprised women diagnosed with iron deficiency anaemia (IDA) immediately after childbirth who attended the in-patient department of Obstetrics and Gynecology at ICMH; the interventional group (Group I) received intravenous ferric carboxymaltose (FCM), while the control group (Group II) received oral iron, with participants selected by simple random sampling based on availability. Sample size was calculated using the formula for comparison of two means ($z\alpha = 2.58$ at the 1% level of significance, $z\beta = 1.64$ at 95% power), with mean haemoglobin and standard deviation values for the two groups drawn from a previous study, giving 38 participants per group, for a total of 76. Dependent variables were haemoglobin and serum ferritin at baseline, 2 weeks, and 6 weeks, achievement of target haemoglobin, and treatment side effects; independent variables were age, education, occupation, monthly income, parity, and baseline BMI. Postpartum anaemia was defined as a haemoglobin concentration below 10 g/dL with ferritin below 30 ng/mL within the first week after childbirth, the postpartum period as the 42 days following delivery of the placenta, and BMI (weight in kilograms divided by height in metres squared) as underweight (<18.5 kg/m²), normal (18.5-24.9 kg/m²), or overweight (25.0-29.9 kg/m²). FCM was administered intravenously according to the manufacturer's recommendations based on haemoglobin and bodyweight: participants under 35 kg received 500 mg as a single dose, those 35 kg to under 70 kg received 1500 mg in two doses at least 7 days apart, and those 70 kg or above received 2000 mg in two doses at least 7 days apart, subject to a maximum single dose of 1000 mg and a weekly cumulative limit of 1000 mg. Participants in the oral iron group received two tablets of Ferrous Ascorbate (48 mg), Folic Acid (0.5 mg), and Zinc Sulfate (22.5 mg) twice daily, 30 minutes before meals, tea, or coffee, with instructions to take tablets with food if side effects developed. A semi-structured questionnaire with a consent form and data collection sheet was administered through 15-30 minute interviews, with data collected according to respondent availability. Following Institutional Review Board approval, 76 postpartum women aged 18-35 years who had delivered by caesarean section or vaginally were enrolled after giving written informed consent, and were allocated 1:1 to the two groups using a lottery system in which participants drew one of two coloured cards under supervision. Baseline sociodemographic, anthropometric, and obstetric data were recorded on standardised sheets, and each participant underwent clinical examination. After intravenous FCM, participants were monitored for at least 2 hours for immediate adverse reactions, including anaphylaxis, skin rash, dyspnoea, facial flushing, metallic taste, urticaria, hypotension, headache, chest pain, or tachycardia. All participants were followed up at 2 and 6 weeks, when haemoglobin and ferritin were reassessed and, for the oral iron group, adherence was checked by collecting returned blister packs; the primary outcome was change in haemoglobin from baseline to the 2- and 6-week follow-ups. Blood samples (5 mL) were drawn from the antecubital vein under aseptic precautions at each follow-up by trained laboratory technologists, with complete blood count performed on an Automated Celltac ES 5 Diff Hematology Analyzer (Nihon Kohden, Japan) and serum ferritin assessed alongside it. Statistical analysis was performed in SPSS v26 (SPSS Inc., Chicago, IL, USA): descriptive statistics were presented as frequencies, percentages, and mean ± SD; the ANOVA F-test compared baseline, 2-week, and 6-week haemoglobin and ferritin changes between groups; chi-square and Fisher's exact tests compared sociodemographic, BMI, parity, and adverse-effect distributions; and $p<0.05$ was considered significant. Of 98 women assessed for eligibility, 18 were excluded and 4 withdrew or could not be contacted before randomisation, leaving 76 women randomised 1:1 into the two groups, both of which completed their allocated intervention in full with no loss to follow-up or missing data. Confidentiality was maintained through signed informed consent, unique participant identification numbers for sample handling and reporting, and standard safety and privacy procedures; no placebo was used. Ethical clearance was obtained from the Institutional Review Board of ICMH, Matuail, Dhaka, and the concerned department. All participants gave informed written consent free of duress, were briefed on the study's purpose, risks, and benefits, and were assured of their right to withdraw at any time; given that only 5 mL of blood was drawn per participant, risk of complications was minimal, and any discomfort, mild pain, weakness, or vertigo was managed with reassurance and analgesics.

Inclusion Criteria

- Women diagnosed with postpartum iron deficiency anaemia within the first week after delivery.
- Haemoglobin (Hb) levels between 7–9.9 g/dL**.**
- Serum ferritin levels <30 µg/L**.**

Exclusion Criteria

- Severe anaemia **(**Hb <7 g/dL**).**
- Other types of anaemia, including sickle cell disease, thalassemia, or anaemia due to chronic liver or kidney disease.
- Recent blood transfusion or allergy to ferric carboxymaltose/parenteral iron**.**

RESULTS

The sociodemographic characteristics of postpartum anaemic patients treated with ferric carboxymaltose and oral iron were compared in *Table I.* There were no significant differences between the groups in terms of age distribution (p=0.387), educational qualifications (p=0.429), occupation (p=0.798), or monthly family income (p=0.883). The mean ages were similar, with 24.55 ± 3.17 years for the ferric carboxymaltose group and 24.79 ± 2.28 years for the oral iron group (p=0.710).

Table I
Categorization of the respondents according to their sociodemographic characteristics by group.

Sociodemographic characteristics	Ferric carboxymaltose (n=38)	Oral iron (n=38)	P-value
20 – 25 years	27 (71.1)	27 (71.1)	
26 – 30 years	9 (23.7)	10 (26.3)	0.387
31 – 35 years	2 (5.3)	1 (2.6)	
Mean age ± SD	24.55 ± 3.17	24.79 ± 2.28	0.710
Primary education	9 (23.7)	5 (13.2)	
SSC	22 (57.9)	23 (60.5)	0.429
HSC and above	7 (18.4)	10 (26.3)	
Household work	28 (73.7)	27 (71.1)	0.798
Service holder	10 (26.3)	11 (28.9)	
Income ≤ 30,000 taka	4 (10.5)	5 (13.2)	
Income 31,000–50,000 taka	25 (65.8)	26 (68.4)	0.883
Income > 50,000 taka	9 (23.7)	7 (18.4)	

Note: figures in parentheses are percentages. Chi-square, Fisher's Exact, or unpaired t-test used as appropriate.

Table II compares the gravid status of postpartum anaemic patients treated with ferric carboxymaltose and oral iron. In the ferric carboxymaltose group, 63.2% were primipara, and 36.8% were multipara. In the oral iron group, 52.6% were primipara, and 47.4% were multipara. There were no significant differences between the groups in terms of para status (p=0.353).

Table II
Categorization of the respondents according to their obstetric characteristics.

Parity	Ferric carboxymaltose (n=38)	Oral iron (n=38)	P-value
Primipara	24 (63.2)	20 (52.6)	0.353
Multipara	14 (36.8)	18 (47.4)	

Table III compares the BMI of postpartum anaemic patients treated with ferric carboxymaltose and oral iron. The mean BMI was 21.50 ± 3.17 for ferric carboxymaltose and 20.79 ± 2.71 for oral iron, with no significant difference (p=0.295). In terms of BMI categories, 21.1% of the ferric carboxymaltose group and 18.4% of the oral iron group were underweight, 71.1% and 76.3% were normal weight, and 7.9% and 5.3% were overweight, respectively, with no significant differences (p=0.857).

Table III
Categorization of the respondents according to body mass index.

Body mass index	Ferric carboxymaltose (n=38)	Oral iron (n=38)	P-value
BMI (Mean ± SD)	21.50 ± 3.17	20.79 ± 2.71	0.295
Underweight	8 (21.1)	7 (18.4)	
Normal weight	27 (71.1)	29 (76.3)	0.857
Overweight	3 (7.9)	2 (5.3)	

Table IV compares the hemoglobin concentration over different weeks between the ferric carboxymaltose and oral iron groups of postpartum women. At baseline, the hemoglobin concentration was 8.45 ± 0.79 g/dL in the ferric carboxymaltose group and 8.57 ± 0.76 g/dL in the oral iron group. By the 2nd week, it increased to 10.29 ± 0.67 g/dL and 9.48 ± 0.56 g/dL, respectively. At the 6th week, the levels further rose to 12.65 ± 0.60 g/dL for ferric carboxymaltose and 11.92 ± 0.48 g/dL for oral iron. These changes were statistically significant (F value = 22.93, p < 0.001).

Table IV
Comparison of hemoglobin concentration over different weeks between ferric carboxymaltose and oral iron groups of postpartum women.

Intervention group	Baseline	2nd week	6th week	F value	P-value
Ferric carboxymaltose	8.45 ± 0.79	10.29 ± 0.67	12.65 ± 0.60	22.93	<0.001
Oral iron	8.57 ± 0.76	9.48 ± 0.56	11.92 ± 0.48		

Table V compares the ferritin concentration over different weeks between the ferric carboxymaltose and oral iron groups. At baseline, the ferritin concentration was 23.34 ± 37.88 ng/mL in the ferric carboxymaltose group and 15.10 ± 6.74 ng/mL in the oral iron group. By the 2nd week, ferritin levels increased to 225.02 ± 42.47 ng/mL and 144.23 ± 40.81 ng/mL, respectively. By the 6th week, ferritin levels declined to 134.71 ± 48.09 ng/mL in the ferric carboxymaltose group and 101.23 ± 26.19 ng/mL in the oral iron group. The changes in ferritin concentration over time were statistically significant (F value = 27.50, p < 0.001).

Table V
Comparison of ferritin concentration over different weeks between ferric carboxymaltose and oral iron groups of postpartum women.

Intervention group	Baseline	2nd week	6th week	F value	P-value
Ferric carboxymaltose	23.34 ± 37.88	225.02 ± 42.47	134.71 ± 48.09	27.50	<0.001
Oral iron	15.10 ± 6.74	144.23 ± 40.81	101.23 ± 26.19		

Table VI presents the failure rates in achieving target hemoglobin concentrations in postpartum women after treatment with ferric carboxymaltose (FCM) versus oral iron. The proportion of women who did not achieve the target was 5.3% in the FCM group and 23.7% in the oral iron group, which is statistically significant (p=0.022). The odds ratio (OR) for not achieving the target was 5.58 (95% CI: 1.2–27.9), indicating that women in the oral iron group were significantly more likely to fail to achieve target hemoglobin levels compared to those in the FCM group.

Table VI
Failure to achieve target hemoglobin concentration in postpartum women after ferric carboxymaltose vs. oral iron treatment.

Target achieved	FCM	Oral iron	χ^2 value	P-value	OR (95% CI)
No	2 (5.3)	9 (23.7)	5.20	0.022	5.58 (1.2 – 27.9)
Yes	36 (94.7)	29 (76.3)			

Note: Yes = Hb concentration >12 g/dL or ≥3 g/dL rise; No = Hb concentration ≤12 g/dL or <3 g/dL rise.

Table VII compares the adverse effects between ferric carboxymaltose and oral iron groups in postpartum women with iron deficiency anaemia (IDA). The occurrence of adverse effects was significantly lower in the ferric carboxymaltose group, where 73.7% of women reported no adverse effects, compared to 47.4% in the oral iron group (p=0.019). Conversely, 26.3% of women in the ferric carboxymaltose group experienced adverse effects, while 52.6% in the oral iron group reported adverse effects. The difference between the two groups was statistically significant (p<0.05).

Table VII
Comparison of adverse effects between ferric carboxymaltose and oral iron groups in postpartum women with IDA.

Adverse effects	Ferric carboxymaltose (n=38)	Oral iron (n=38)	P-value
No	28 (73.7)	18 (47.4)	0.019
Yes	10 (26.3)	20 (52.6)	

Table VIII compares the specific adverse effects between ferric carboxymaltose and oral iron groups in postpartum women with iron deficiency anaemia. Constipation and gastrointestinal (GI) pain were significantly more common in the oral iron group, with 34.2% of women experiencing constipation and 26.3% reporting GI pain, while none in the ferric carboxymaltose group reported these effects (p<0.001 for both). Other adverse effects, such as urticaria, nausea, muscle cramps, dysgeusia, and headaches, occurred in both groups but were not statistically significant.

Table VIII
Comparison of types of adverse effects between ferric carboxymaltose and oral iron groups in postpartum women with IDA.

Adverse effects	Ferric carboxymaltose (n=38)	Oral iron (n=38)	P-value
Urticaria	2 (5.3)	0 (0.0)	0.493
Constipation	0 (0.0)	13 (34.2)	<0.001
Nausea	2 (5.3)	4 (10.5)	0.674
GI pain	0 (0.0)	10 (26.3)	<0.001
Muscle cramp	2 (5.3)	0 (0.0)	0.493
Dysgeusia	2 (5.3)	0 (0.0)	0.493
Headache	3 (7.9)	1 (2.6)	0.615

DISCUSSION

This randomized controlled trial compared intravenous ferric carboxymaltose (FCM) with oral iron in 76 postpartum women with iron deficiency anaemia treated at the Department of Obstetrics and Gynecology, ICMH, Matuail, Dhaka. Participants were randomised into two equal groups, one receiving a single dose of intravenous FCM and the other oral iron for six weeks, and the results offer useful insight into how the two approaches compare in a setting where postpartum anaemia remains common and often undertreated.

The most striking finding was the faster rise in haemoglobin in the FCM group at both the 2- and 6-week follow-ups; by week 6, haemoglobin had risen by 4.19 g/dL in the FCM group against 3.34 g/dL with oral iron (p<0.001), pointing to quicker haematological recovery with intravenous therapy. This pattern is consistent with the wider literature. Vanobberghen (2021) found that 80% of women given intravenous iron reached normal haemoglobin by 6 weeks compared with 51% on oral iron (adjusted OR 4.65, p<0.0001), with mean Hb of 125 g/L versus 118 g/L.[25] Kant (2020) reported haemoglobin rising from 8.5 to 12.6 g/dL by 6 weeks, with the largest gains in women with severe anaemia,[24] while Rathod (2015) found 66% of the FCM group reached ≥12 g/dL compared with 12% on oral iron (p<0.0001).[26] Joshi (2016) similarly reported a greater haemoglobin rise with FCM than iron sucrose (4.68 g/dL vs 3.92 g/dL, p<0.001),[27] and Damineni and Thunga (2016) found FCM produced larger gains than oral iron at both 1 week (1.98 vs 1.14 g/dL) and 6 weeks (3.23 vs 2.27 g/dL, p<0.001 for both).[23] Breymann (2008) reported comparable 12-week gains between FCM and oral iron (33.7 g/L vs 32.9 g/L) but faster iron replenishment with FCM.[21] This advantage likely reflects pharmacokinetics: by bypassing the gastrointestinal tract, intravenous FCM makes iron immediately available for erythropoiesis, whereas oral absorption can be limited by inflammation or altered hepcidin regulation in the postpartum period.[1] For women recovering from

delivery, particularly those managing a newborn while still healing, this speed of correction is not a minor convenience; it may shorten the period during which fatigue and breathlessness limit daily functioning and caregiving capacity.

Ferritin followed a similar pattern. In this study, ferritin in the FCM group reached 225.02 ng/mL at 2 weeks versus 144.23 ng/mL with oral iron, and remained higher at 6 weeks despite declining in both groups (134.71 vs 101.23 ng/mL, $p<0.001$), reflecting more complete replenishment of iron stores. Vanobberghen (2020) similarly found ferritin reaching 358 µg/L with intravenous iron against 48 µg/L with oral iron at 6 weeks, with 94% versus 11% of participants exceeding 100 µg/L ($p<0.0001$).[25] Kant (2020) recorded a mean ferritin rise of 137.3 ng/mL with FCM,[24] Joshi (2016) a larger rise with FCM than iron sucrose (95.39 vs 71.07 ng/mL),[27] and Breymann (2008) a sharp early increase from 39.9 to 568.2 µg/L by week 1 in the FCM arm, well above the comparator group.[21] Seid et al. and Van Wyck et al. reported the same direction of effect.[22,20] Together, this evidence supports intravenous FCM as the more reliable route for restoring iron stores, which matters most for women at higher risk of recurrent anaemia, such as those with substantial blood loss at delivery or multiple gestations.

Failure to reach target haemoglobin was also less common with FCM in this study (5.3% vs 23.7%, OR 5.58, $p=0.022$), suggesting that poor absorption, side-effect-driven non-adherence, or inadequate dosing may limit oral iron's effectiveness within a comparable timeframe. Seid et al. (2008) found 91.4% of the FCM group reached Hb >12 g/dL versus 66.7% on oral iron ($p<0.0001$), a gap that widened further among women with baseline Hb ≤8 g/dL.[22] Van Wyck et al. (2007) found similar overall success rates between arms (96.4% vs 94.1%) but a much shorter median time to a ≥2.0 g/dL rise with FCM (7 versus 14 days, $p<0.001$), particularly among women with more severe baseline anaemia.[20] These findings reinforce FCM as a dependable option where prompt correction matters, and suggest that reliance on oral therapy alone may leave a meaningful minority of women under-treated by the time routine postpartum follow-up ends.

Both treatments were generally well tolerated, though FCM caused fewer gastrointestinal complaints, mirroring the pattern seen across most of the comparator trials. Vanobberghen et al. (2020) reported adverse events in 48% of the intravenous group and 37% of the oral iron group, mostly mild, with serious events rare and unrelated to treatment.[25] Kant et al. (2020) recorded mild reactions, chiefly injection-site itching, in only 9.4% of FCM recipients, all resolving with antiallergic medication.[24] Joshi et al. (2016) found more minor reactions with iron sucrose than FCM,[27] and Damineni and Thunga (2016) reported no adverse reactions with FCM against gastrointestinal complications in a third of the oral iron group.[23] Rathod et al. (2015) and Breymann (2008) likewise found more adverse reactions, including constipation, with oral iron, and higher patient satisfaction with FCM,[26,21] while Khalafallah and Dennis noted generally better tolerability with intravenous iron preparations.[1] In the present study, constipation and gastrointestinal pain were reported exclusively in the oral iron group, a pattern that fits well with this broader body of evidence.

Taken together, these findings support intravenous FCM as a faster, more reliable, and better-tolerated option for postpartum anaemia, particularly for women with moderate to severe deficiency or those needing rapid recovery, such as after caesarean delivery. A single infusion also removes the burden of a multi-week course of tablets, which may be of particular value where follow-up visits are difficult to arrange and adherence is hard to monitor. Its higher cost, however, remains a genuine barrier in resource-limited settings such as ours, and cost-effectiveness data specific to such settings would help translate these findings into clearer treatment guidance.

LIMITATIONS

This study was limited by its conduct at a single tertiary hospital, a small sample size constrained by financial resources, and a short follow-up duration, so its findings cannot be generalized to the broader population.

CONCLUSION

Intravenous ferric carboxymaltose (FCM) proved more effective than oral iron for treating postpartum anemia in this study. FCM significantly increased hemoglobin and ferritin levels at both 2 and 6 weeks, with fewer patients failing to achieve target hemoglobin concentrations. Furthermore, FCM was associated with fewer adverse effects. These findings suggest that FCM offers faster, more tolerable correction of postpartum anemia, potentially improving maternal recovery and outcomes.

RECOMMENDATIONS

In light of the findings of the present study, intravenous ferric carboxymaltose (FCM) should be considered as the preferred treatment for postpartum anemia given its superior efficacy in increasing hemoglobin and ferritin levels, clinical practice guidelines should be updated to reflect the benefits of FCM in reducing the failure rate in achieving target hemoglobin levels, and further research should be conducted on the long-term benefits, safety, and cost-effectiveness of FCM for postpartum anemia management.

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