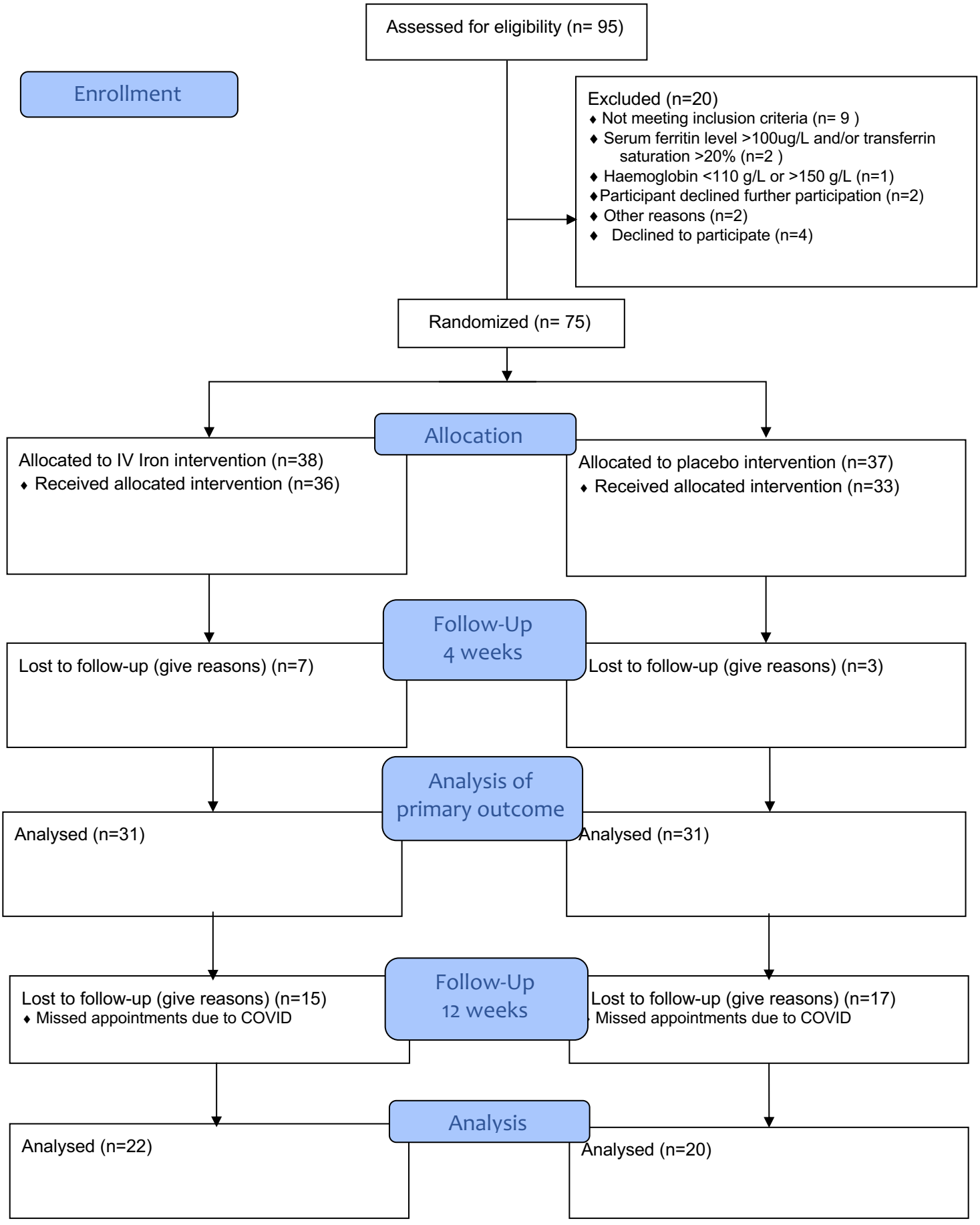
Supplementary Figure 1. Trial Consort Diagram



Supplementary Table 1. Summary of Adverse Events

Adverse Events	Total	FCM	Placebo
Infections (n=7)			
	One acute Pneumonia	1	0
	Pseudomonas Urinary tract infection x 3	0	3
	One Septic Shock	1	0
	One cellulitis	1	0
	One Genito-urinary Infection	0	1
Other (n=1)			
	Musculo-skeletal due to fall	0	1
	8 in 6 patients	In 3 patients	In 3 patients

Supplementary Table 2: Summary of Isokinetic dynamometry (muscle strength, for both left and right leg) at baseline, 1 month and 3 months

		IV Iron		Placebo		
		Mean (SD)	n¥	Mean (SD)	n¥	P-value±
Highest peak torque achieved at 60 degrees angular velocity (newton meters)						
Right Leg	Baseline	94 (46)	37	100 (42)	33	
	4 weeks	98 (48)	28	92 (37)	30	0.787
	12 weeks	115 (50)	24	111 (52)	19	0.584
Left Leg	Baseline	91 (47)	34	94 (41)	33	
	4 weeks	94 (47)	26	84 (42)	29	0.759
	12 weeks	105 (49)	22	99 (46)	19	0.841
Highest peak torque achieved at 90 degrees angular velocity (newton meters)						
Right Leg	Baseline	93 (50)	37	95 (36)	33	
	4 weeks	90 (47)	28	84 (34)	30	0.865
	12 weeks	101 (49)	24	101 (49)	19	0.984
Left Leg	Baseline	83 (40)	34	84 (37)	33	
	4 weeks	87 (44)	26	78 (36)	29	0.953

	12 weeks	91 (41)	22	90 (41)	19	0.440
Highest peak torque achieved at 120 degrees angular velocity (newton meters)						
Right Leg	Baseline	82 (45)	37	87 (32)	33	
	4 weeks	80 (43)	28	77 (28)	30	0.550
	12 weeks	91 (44)	24	94 (49)	19	0.836
Left Leg	Baseline	74 (36)	34	78 (30)	33	
	4 weeks	77 (40)	26	69 (31)	29	0.396
	12 weeks	84 (41)	22	80 (36)	19	0.736
Isometric maximum voluntary contraction (90 degree angle): Highest peak torque (newton meters)						
Right Leg	Baseline	128 (73)	37	137 (58)	33	
	4 weeks	127 (59)	27	121 (55)	30	0.959
	12 weeks	134 (63)	24	134 (71)	19	0.757
Left Leg	Baseline	122 (69)	34	127 (51)	33	
	4 weeks	127 (58)	25	117 (51)	28	0.976
	12 weeks	132 (67)	22	119 (58)	19	0.351

¥Number of patients with complete data at each time point; baseline, 1 month and 3 months

$ P-value for the treatment effect using ANCOVA analysis where the baseline and the binary stratification variable ferritin (defined as whether baseline ferritin is over 50µg/L) are used as covariates

Supplementary table 3: Baseline characteristics; Mean (Standard deviation (SD)), number (n) or percentage (%) for patients who choose to exercise by treatment arm.

Characteristic	**Overall**, N = 32[1]	**Ferrinject**, N = 16[1]	**Placebo**, N = 16[1]
Ethnic origin			
White	17 (53%)	10 (62%)	7 (44%)
Asian	7 (22%)	3 (19%)	4 (25%)
Black	8 (25%)	3 (19%)	5 (31%)
Smoking status			
Current smoker	2 (6.5%)	2 (13%)	0 (0%)
Ex smoker	4 (13%)	1 (6.7%)	3 (19%)

Characteristic	**Overall**, N = 32[1]	**Ferrinject**, N = 16[1]	**Placebo**, N = 16[1]
Non smoker	25 (81%)	12 (80%)	13 (81%)
Missing	1	1	0
Main cause of renal failure			
Diabetic nephropathy	6 (19%)	3 (19%)	3 (20%)
Glomerular disease	2 (6.5%)	1 (6.2%)	1 (6.7%)
Hypertension	10 (32%)	3 (19%)	7 (47%)
Tubulointerstitial disease	1 (3.2%)	1 (6.2%)	0 (0%)
Renovascular disease	0 (0%)	0 (0%)	0 (0%)
Polycystic kidney disease	5 (16%)	3 (19%)	2 (13%)
Other	4 (13%)	3 (19%)	1 (6.7%)
Unknown cause	3 (9.7%)	2 (12%)	1 (6.7%)
Missing	1	0	1
Has the participant had a kidney transplant?	2 (6.5%)	2 (13%)	0 (0%)
Missing	1	1	0
Age	59 (15), range: [32-79]	55 (17), range: [32-79]	62 (13), range: [39-78]
Sex			
Male	16 (50%)	9 (56%)	7 (44%)
Female	16 (50%)	7 (44%)	9 (56%)
6MWT (metres)	417 (191), range: [8-677]	379 (220), range: [8-660]	453 (160), range: [20-677]
Missing	1	1	0
Height (cm)	169 (9), range: [151-191]	171 (10), range: [151-191]	167 (9), range: [152-183]
Weight (kg)	86 (19), range: [60-151]	83 (21), range: [60-151]	89 (16), range: [62-129]

Characteristic	Overall, N = 32[1]	Ferrinject, N = 16[1]	Placebo, N = 16[1]
Waist circumference (cm)	107 (16), range: [73-150]	101 (17), range: [73-150]	113 (12), range: [96-140]
Hip circumference (cm)	112 (14), range: [83-147]	108 (16), range: [83-147]	116 (12), range: [102-140]
Body Mass Index (BMI)	30.2 (6.0), range: [20.6-47.4]	28.3 (5.8), range: [20.6-41.5]	32.0 (5.7), range: [24.5-47.4]

[1]n (%); Mean (SD), Median (IQR), range: [Minimum-Maximum]

CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	1
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	3-4
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	5-6
	2b	Specific objectives or hypotheses	6
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	7-8
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	8
Participants	4a	Eligibility criteria for participants	8
	4b	Settings and locations where the data were collected	7
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	7-8
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	9-10
	6b	Any changes to trial outcomes after the trial commenced, with reasons	N/A
Sample size	7a	How sample size was determined	9
	7b	When applicable, explanation of any interim analyses and stopping guidelines	N/A
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	7-8
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	7-8
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	7-8

Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	7-8
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	7-8
	11b	If relevant, description of the similarity of interventions	10
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	10
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	10
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	11
	13b	For each group, losses and exclusions after randomisation, together with reasons	11
Recruitment	14a	Dates defining the periods of recruitment and follow-up	11
	14b	Why the trial ended or was stopped	11
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	Table 1
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	Table 2 and 3
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	11,12 and tables2-4
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	11-12
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	11-12
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	12 and supp 1
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	16
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	16
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	13-16
Other information			
Registration	23	Registration number and name of trial registry	1
Protocol	24	Where the full trial protocol can be accessed, if available	16
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	16

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.