Supplementary material

Comparative Efficacy and Safety of Intravenous Iron Formulations for Treating Iron Deficiency Anemia: A Systematic Review and Network Meta-Analysis

Summary

Supplement 1 – PRISMA Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Main Text p1-2
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Main Text p1-2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Main Text p3
Objectives	4	Provide an explicit statement of the objective (s) or question (s) the review addresses.	Main Text p4
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Main Text p4
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Main Text p5
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Supplement 2
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Main Text p5
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Main Text p5-6
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses) , and if not, the methods used to decide which results to collect.	Main Text p5-6
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources) . Describe any assumptions made about any missing or unclear information.	Main Text p5-6
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool (s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Main Text p6
Effect measures	12	Specify for each outcome the effect measure (s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	Main Text p6
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)) .	Main Text p6-7
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Main Text p6-7
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Main Text p6-7
	13d	Describe any methods used to synthesize results and provide a rationale for the choice (s) . If meta-analysis was performed, describe the model (s) , method (s) to identify the presence and extent of statistical heterogeneity, and software package (s) used.	Main Text p6-7
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression) .	Main Text p6-7

	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	Main Text p6-7
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases) .	Main Text p6
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	Main Text p6
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Main Text p7-8
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Supplement 4
Study characteristics	17	Cite each included study and present its characteristics.	Supplement 6-7
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Supplement 8
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimates and its precision (e.g. confidence/credible interval) , ideally using structured tables or plots.	Supplement 11-25
Results of syntheses	20a	For each synthesis, briefly summarize the characteristics and risk of bias among contributing studies.	Main Text p10 and Supplement 8
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Supplement 9-24
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	NR
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	Main Text p10
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Supplement 8
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Main Text p10 and Supplement 3
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Main Text p14-15
	23b	Discuss any limitations of the evidence included in the review.	Main Text p14-15
	23c	Discuss any limitations of the review processes used.	Main Text p14-15
	23d	Discuss implications of the results for practice, policy, and future research.	Main Text p14-15
OTHER INFORMATION			
Registration and	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	Main Text p1

protocol	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Main Text p1,4
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	Main Text p1,4
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Main Text p1
Competing interests	26	Declare any competing interests of review authors.	Main Text p16
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	All Supplements

ADDITIONAL PRISMA – NMA			
Section and Topic	**Item #**	**Checklist item**	**Location where item is reported**
S1. Geometry of the network	S1	Describe methods used to explore the geometry of the treatment network under study and potential biases related to it. This should include how the evidence base has been graphically summarized for presentation, and what characteristics were compiled and used to describe the evidence base to readers	Main Text - Methods
S2. Assessment of inconsistency	S2	Describe the statistical methods used to evaluate the agreement of direct and indirect evidence in the treatment network (s) studied. Describe efforts taken to address its presence when found.	Main Text - Methods
S3 - Presentation of network structure	S3	Provide a network graph of the included studies to enable visualization of the geometry of the treatment network.	Supplement 9
S4 - Summary of network geometry	S4	Provide a brief overview of characteristics of the treatment network. This may include commentary on the abundance of trials and randomized patients for the different interventions and pairwise comparisons in the network, gaps of evidence in the treatment network, and potential biases reflected by the network structure.	Main Text - Results
S5 - Exploration for inconsistency	S5	Describe results from investigations of inconsistency. This may include such information as measures of model fit to compare consistency and inconsistency models, P values from statistical tests, or summary of inconsistency estimates from different parts of the treatment network	Supplement 10

Supplement 2 – Search Strategy.

PubMed

Nº	Query	Results
1	"Iron-Dextran Complex"[Mesh]	1,407
2	((((((((((Iron Dextran Complex[Title/Abstract]) OR (Ferridextran[Title/Abstract])) OR (Dextran-Iron Complex[Title/Abstract])) OR (Dextran Iron Complex[Title/Abstract])) OR (InFed[Title/Abstract])) OR (Dexferrum[Title/Abstract])) OR (Feosol[Title/Abstract])) OR (Icar[Title/Abstract])) OR (Imferon[Title/Abstract])) OR (Imposil[Title/Abstract])) OR (Dextrofer[Title/Abstract])	850
3	("Iron-Dextran Complex"[Mesh]) OR ((((((((((Iron Dextran Complex[Title/Abstract]) OR (Ferridextran[Title/Abstract])) OR (Dextran-Iron Complex[Title/Abstract])) OR (Dextran Iron Complex[Title/Abstract])) OR (InFed[Title/Abstract])) OR (Dexferrum[Title/Abstract])) OR (Feosol[Title/Abstract])) OR (Icar[Title/Abstract])) OR (Imferon[Title/Abstract])) OR (Imposil[Title/Abstract])) OR (Dextrofer[Title/Abstract]))	1,955
4	"ferrous gluconate" [Supplementary Concept]	93
5	(((((((Fergon[Title/Abstract]) OR (Dextriferron[Title/Abstract])) OR (FeG Iron[Title/Abstract])) OR (Vitaferro Brause[Title/Abstract])) OR (Ferrum Verla[Title/Abstract])) OR (Losferron[Title/Abstract])) OR (Loesferron[Title/Abstract])) OR (Simron[Title/Abstract])	227
6	("ferrous gluconate" [Supplementary Concept]) OR ((((((Fergon[Title/Abstract]) OR (Dextriferron[Title/Abstract])) OR (FeG Iron[Title/Abstract])) OR (Losferron[Title/Abstract])) OR (Loesferron[Title/Abstract])) OR (Simron[Title/Abstract]))	318
7	"Ferric Oxide, Saccharated"[Mesh]	641
8	(((((((((Saccharated Ferric Oxide[Title/Abstract]) OR (Ferric Saccharate[Title/Abstract])) OR (Iron Sucrose[Title/Abstract])) OR (Iron-Saccharate[Title/Abstract])) OR (Iron Saccharate[Title/Abstract])) OR (Ferri-Saccharate[Title/Abstract])) OR (Ferri Saccharate[Title/Abstract])) OR (Iron Oxide (Saccharated[Title/Abstract]))) OR (Venofer[Title/Abstract])) OR (Hippiron[Title/Abstract])	887
9	(((((((((Saccharated Ferric Oxide[Title/Abstract]) OR (Ferric Saccharate[Title/Abstract])) OR (Iron Sucrose[Title/Abstract])) OR (Iron-Saccharate[Title/Abstract])) OR (Iron Saccharate[Title/Abstract])) OR (Ferri-Saccharate[Title/Abstract])) OR (Ferri Saccharate[Title/Abstract])) OR (Iron Oxide (Saccharated[Title/Abstract]))) OR (Venofer[Title/Abstract])) OR (Hippiron[Title/Abstract])	1,058
10	"Ferrosoferric Oxide"[Mesh]	5,046
11	((Magnetite[Title/Abstract]) OR (Feraheme[Title/Abstract])) OR (Ferumoxytol[Title/Abstract])	8,186
12	("Ferrosoferric Oxide"[Mesh]) OR (((Magnetite[Title/Abstract]) OR (Feraheme[Title/Abstract])) OR (Ferumoxytol[Title/Abstract]))	11,903
13	"ferric carboxymaltose" [Supplementary Concept]	503
14	(((((iron carboxymaltose[Title/Abstract]) OR (iron dextri-maltose[Title/Abstract])) OR (Ferinject[Title/Abstract])) OR (VIT-45[Title/Abstract])) OR (VIT 45[Title/Abstract])) OR (injectafer[Title/Abstract])	101
15	("ferric carboxymaltose" [Supplementary Concept]) OR ((((((iron carboxymaltose[Title/Abstract]) OR (iron dextri-maltose[Title/Abstract])) OR (Ferinject[Title/Abstract])) OR (VIT-45[Title/Abstract])) OR (VIT 45[Title/Abstract])) OR (injectafer[Title/Abstract]))	559
16	"iron isomaltoside 1000" [Supplementary Concept]	84
17	"iron isomaltoside"[Title/Abstract]	127
18	"ferric derisomaltose"[Text Word]	102
19	(("iron isomaltoside 1000" [Supplementary Concept]) OR (iron isomaltoside[Title/Abstract])) OR (ferric derisomaltose[Text Word])	215
20	(((((("Iron-Dextran Complex"[Mesh]) OR ((((((((((Iron Dextran Complex[Title/Abstract]) OR (Ferridextran[Title/Abstract])) OR (Dextran-Iron Complex[Title/Abstract])) OR (Dextran Iron Complex[Title/Abstract])) OR (InFed[Title/Abstract])) OR (Dexferrum[Title/Abstract])) OR (Feosol[Title/Abstract])) OR (Icar[Title/Abstract])) OR (Imferon[Title/Abstract])) OR (Imposil[Title/Abstract])) OR (Dextrofer[Title/Abstract]))) OR (("ferrous gluconate" [Supplementary Concept]) OR ((((((Fergon[Title/Abstract]) OR (Dextriferron[Title/Abstract])) OR (FeG Iron[Title/Abstract])) OR (Losferron[Title/Abstract])) OR (Loesferron[Title/Abstract])) OR (Simron[Title/Abstract])))) OR ((((((((((Saccharated Ferric Oxide[Title/Abstract]) OR (Ferric Saccharate[Title/Abstract])) OR (Iron Sucrose[Title/Abstract])) OR (Iron-Saccharate[Title/Abstract])) OR (Iron Saccharate[Title/Abstract])) OR (Ferri-Saccharate[Title/Abstract])) OR (Ferri Saccharate[Title/Abstract])) OR (Iron Oxide (Saccharated[Title/Abstract]))) OR	14,695

	(Venofer[Title/Abstract])) OR (Hippiron[Title/Abstract]))) OR (("Ferrosoferric Oxide"[Mesh]) OR (((Magnetite[Title/Abstract]) OR (Feraheme[Title/Abstract])) OR (Ferumoxytol[Title/Abstract])))) OR (("ferric carboxymaltose" [Supplementary Concept]) OR ((((((iron carboxymaltose[Title/Abstract]) OR (iron dextri-maltose[Title/Abstract])) OR (Ferinject[Title/Abstract])) OR (VIT-45[Title/Abstract])) OR (VIT 45[Title/Abstract])) OR (injectafer[Title/Abstract])))) OR ((("iron isomaltoside 1000" [Supplementary Concept]) OR (iron isomaltoside[Title/Abstract])) OR (ferric derisomaltose[Text Word]))	
21	"Anemia, Iron-Deficiency"[Mesh]	11,928
22	((((((Anemia, Iron Deficiency[Title/Abstract]) OR (Iron-Deficiency Anemia[Title/Abstract])) OR (Iron Deficiency Anemia[Title/Abstract])) OR (Anemias, Iron-Deficiency[Title/Abstract])) OR (Anemias, Iron Deficiency[Title/Abstract])) OR (Iron-Deficiency Anemias[Title/Abstract])) OR (Iron Deficiency Anemias[Title/Abstract])	9,468
23	("Anemia, Iron-Deficiency"[Mesh]) OR (((((((Anemia, Iron Deficiency[Title/Abstract]) OR (Iron-Deficiency Anemia[Title/Abstract])) OR (Iron Deficiency Anemia[Title/Abstract])) OR (Anemias, Iron-Deficiency[Title/Abstract])) OR (Anemias, Iron Deficiency[Title/Abstract])) OR (Iron-Deficiency Anemias[Title/Abstract])) OR (Iron Deficiency Anemias[Title/Abstract]))	17,017
24	(("Anemia, Iron-Deficiency"[Mesh]) OR (((((((Anemia, Iron Deficiency[Title/Abstract]) OR (Iron-Deficiency Anemia[Title/Abstract])) OR (Iron Deficiency Anemia[Title/Abstract])) OR (Anemias, Iron-Deficiency[Title/Abstract])) OR (Anemias, Iron Deficiency[Title/Abstract])) OR (Iron-Deficiency Anemias[Title/Abstract])) OR (Iron Deficiency Anemias[Title/Abstract]))) AND ((((((("Iron-Dextran Complex"[Mesh]) OR ((((((((((Iron Dextran Complex[Title/Abstract]) OR (Ferridextran[Title/Abstract])) OR (Dextran-Iron Complex[Title/Abstract])) OR (Dextran Iron Complex[Title/Abstract])) OR (InFed[Title/Abstract])) OR (Dexferrum[Title/Abstract])) OR (Feosol[Title/Abstract])) OR (Icar[Title/Abstract])) OR (Imferon[Title/Abstract])) OR (Imposil[Title/Abstract])) OR (Dextrofer[Title/Abstract]))) OR (("ferrous gluconate" [Supplementary Concept]) OR ((((((Fergon[Title/Abstract]) OR (Dextriferron[Title/Abstract])) OR (FeG Iron[Title/Abstract])) OR (Losferron[Title/Abstract])) OR (Loesferron[Title/Abstract])) OR (Simron[Title/Abstract])))) OR ((((((((((Saccharated Ferric Oxide[Title/Abstract]) OR (Ferric Saccharate[Title/Abstract])) OR (Iron Sucrose[Title/Abstract])) OR (Iron-Saccharate[Title/Abstract])) OR (Iron Saccharate[Title/Abstract])) OR (Ferri-Saccharate[Title/Abstract])) OR (Ferri Saccharate[Title/Abstract])) OR (Iron Oxide (Saccharated[Title/Abstract]))) OR (Venofer[Title/Abstract])) OR (Hippiron[Title/Abstract]))) OR (("Ferrosoferric Oxide"[Mesh]) OR (((Magnetite[Title/Abstract]) OR (Feraheme[Title/Abstract])) OR (Ferumoxytol[Title/Abstract])))) OR (("ferric carboxymaltose" [Supplementary Concept]) OR ((((((iron carboxymaltose[Title/Abstract]) OR (iron dextri-maltose[Title/Abstract])) OR (Ferinject[Title/Abstract])) OR (VIT-45[Title/Abstract])) OR (VIT 45[Title/Abstract])) OR (injectafer[Title/Abstract])))) OR ((("iron isomaltoside 1000" [Supplementary Concept]) OR (iron isomaltoside[Title/Abstract])) OR (ferric derisomaltose[Text Word])))	1,031
25	(("Anemia, Iron-Deficiency"[Mesh]) OR (((((((Anemia, Iron Deficiency[Title/Abstract]) OR (Iron-Deficiency Anemia[Title/Abstract])) OR (Iron Deficiency Anemia[Title/Abstract])) OR (Anemias, Iron-Deficiency[Title/Abstract])) OR (Anemias, Iron Deficiency[Title/Abstract])) OR (Iron-Deficiency Anemias[Title/Abstract])) OR (Iron Deficiency Anemias[Title/Abstract]))) AND ((((((("Iron-Dextran Complex"[Mesh]) OR (((((((((((Iron Dextran Complex[Title/Abstract]) OR (Ferridextran[Title/Abstract])) OR (Dextran-Iron Complex[Title/Abstract])) OR (Dextran Iron Complex[Title/Abstract])) OR (InFed[Title/Abstract])) OR (Dexferrum[Title/Abstract])) OR (Feosol[Title/Abstract])) OR (Icar[Title/Abstract])) OR (Imferon[Title/Abstract])) OR (Imposil[Title/Abstract])) OR (Dextrofer[Title/Abstract]))) OR (("ferrous gluconate" [Supplementary Concept]) OR ((((((Fergon[Title/Abstract]) OR (Dextriferron[Title/Abstract])) OR (Losferron[Title/Abstract])) OR (Loesferron[Title/Abstract])) OR (Simron[Title/Abstract])))) OR (((((((((((Saccharated Ferric Oxide[Title/Abstract]) OR (Ferric Saccharate[Title/Abstract])) OR (Iron Sucrose[Title/Abstract])) OR (Iron-Saccharate[Title/Abstract])) OR (Iron Saccharate[Title/Abstract])) OR (Ferri-Saccharate[Title/Abstract])) OR (Ferri Saccharate[Title/Abstract])) OR (Iron Oxide (Saccharated[Title/Abstract]))) OR (Venofer[Title/Abstract])) OR (Hippiron[Title/Abstract]))) OR (("Ferrosoferric Oxide"[Mesh]) OR (((Magnetite[Title/Abstract]) OR (Feraheme[Title/Abstract])) OR (Ferumoxytol[Title/Abstract])))) OR (("ferric carboxymaltose" [Supplementary Concept]) OR (((((((iron carboxymaltose[Title/Abstract]) OR (iron dextri-maltose[Title/Abstract])) OR (Ferinject[Title/Abstract])) OR (VIT-45[Title/Abstract])) OR (VIT 45[Title/Abstract])) OR (injectafer[Title/Abstract])))) OR ((("iron isomaltoside 1000" [Supplementary Concept]) OR (iron isomaltoside[Title/Abstract])) OR (ferric derisomaltose[Text Word])))	244+45

Cochrane Library

	Terms		Number
#1	MeSH descriptor: [Anemia, Iron-Deficiency] explode all trees	1802	976
#2	Anemia, Iron Deficiency 4222		
#3	Iron Deficiency Anemias 68		
#4	Iron Deficiency Anemia 4222		
#5	Iron-Deficiency Anemias 58		
#6	Anemias, Iron Deficiency 68		
#7	Anemias, Iron-Deficiency 58		
#8	Iron-Deficiency Anemia 3976		
#9	{OR #1-#8} 4230		
#10	MeSH descriptor: [Iron-Dextran Complex] explode all trees 79		
#11	Imperon 0		
#12	Norferan 0		
#13	Dextran Iron Complex 111		
#14	Dextran-Iron Complex 6		
#15	Iron Dextran Complex 111		
#16	Ferridextran 0		
#17	Dexferrum 2		
#18	Feosol 4		
#19	InFed 3		
#20	Imposil 0		
#21	Imferon 12		
#22	Hematran 0		
#23	Icar 56		
#24	Dextrofer 0		
#25	Imfergen 0		
#26	{OR #10-#25} 173		
#27	Ferrous gluconate 123		
#28	Fergon 2		
#29	Dextriferron 3		
#30	FeG Iron 60		
#31	Vitaferro Brause 0		
#32	Ferrum Verla 0		
#33	Losferron 5		
#34	Loesferron 1		
#35	Simron 0		
#36	{OR #27-#35} 188		
#37	MeSH descriptor: [Ferric Oxide, Saccharated] explode all trees	234	
#38	Venofer 94		
#39	Iron Oxide (Saccharated) 251		
#40	Iron Saccharate 69		
#41	Ferric Saccharate 35		
#42	Iron-Saccharate 64		
#43	Ferri Saccharate 0		
#44	Ferri-Saccharate 0		
#45	Saccharated Ferric Oxide 248		
#46	Iron Sucrose 578		
#47	Hippiron 0		
#48	{OR #37-#47} 679		
#49	MeSH descriptor: [Ferrosoferric Oxide] explode all trees 99		
#50	Ferumoxytol 144		
#51	Feraheme 15		
#52	Ferriferrous Oxide 0		
#53	Oxide, Ferrosoferric 101		
#54	Oxide, Ferriferrous 0		
#55	Magnetite 63		
#56	{OR #49-#55} 210		
#57	Ferric carboxymaltose 638		
#58	iron carboxymaltose 638		
#59	iron dextri-maltose 0		
#60	Ferinject 159		
#61	VIT-45 8		

#62	VIT 45	220		
#63	injectafer	27		
#64	{OR #57-#63}	900		
#65	Iron isomaltoside	189		
#66	iron isomaltoside 1000	124		
#67	ferric derisomaltose	97		
#68	{OR #65-#67}	257		
#69	#26 OR #36 OR #48 OR #56 OR #64 OR #68	2080		
#70	#9 AND #69	976		

EMBASE

Nº	Query	Number
#28	#27 AND ('clinical trial'/de OR 'clinical trial topic'/de OR 'controlled clinical trial'/de OR 'phase 3 clinical trial'/de OR 'phase 3 clinical trial topic'/de OR 'randomized controlled trial'/de OR 'randomized controlled trial topic'/de)	363
#27	#26 AND [embase]/lim NOT ([embase]/lim AND [medline]/lim)	1381
#26	#22 AND #25	3199
#25	#23 OR #24	41012
#24	'anaemia, hypochromic' OR 'anaemia, iron deficiency' OR 'anaemia, iron-deficiency' OR 'anaemia, microcytic hypochromic' OR 'anemia, hypochromic' OR 'anemia, iron deficiency' OR 'anemia, iron-deficiency' OR 'anemia, microcytic hypochromic' OR 'asiderotic anaemia' OR 'asiderotic anemia' OR 'ferriprive anaemia' OR 'ferriprive anemia' OR 'hypochrome anaemia' OR 'hypochrome anemia' OR 'hypochromic anaemia' OR 'hypochromic anemia' OR 'hypochromic iron deficiency anaemia' OR 'hypochromic iron deficiency anemia' OR 'hypochromic microcytic anaemia' OR 'hypochromic microcytic anemia' OR 'hypoferrous anaemia' OR 'hypoferrous anemia' OR 'iron deficiency anaemia' OR 'iron deficient anaemia' OR 'iron deficient anemia' OR 'iron refractory anaemia' OR 'iron refractory anemia' OR 'iron-deficiency anaemia' OR 'iron-deficiency anemia' OR 'microcytic hypochromic anaemia' OR 'microcytic hypochromic anemia' OR 'sideropenic anaemia' OR 'sideropenic anemia' OR 'iron deficiency anemia'	40986
#23	'iron deficiency anemia'/exp	36775
#22	#3 OR #6 OR #9 OR #12 OR #15 OR #18 OR #21	42843
#21	#19 OR #20	467
#20	'dextrifer' OR 'dextrifer s' OR 'dextrifer-s' OR 'ferric hydroxide polymaltose' OR 'ferric hydroxide polymaltose complex' OR 'ferrosig' OR 'ferrous polymaltosate' OR 'ferrous polymaltose complex' OR 'hemafer' OR 'iron hydroxide polymaltose' OR 'iron polymaltosate' OR 'iron polymaltose complex' OR 'iron polymaltose hydroxide' OR 'polymaltose iron hydroxide complex' OR 'teferrol' OR 'iron polymaltose'	467
#19	'iron polymaltose'/exp	432
#18	#16 OR #17	903
#17	' (1-6) alpha dextro glucopyranan (1-6) dextro glucitol iron (iii) complex' OR 'diafer' OR 'ferric derisomaltose' OR 'iron isomaltoside 1000' OR 'isofer' OR 'isomaltose iron' OR 'isomaltose, ferric complex' OR 'jilazo' OR 'monofer' OR 'monoferric' OR 'monoferro' OR 'monover' OR 'ns 32' OR 'ns32' OR 'iron isomaltose'	903
#16	'iron isomaltose'/exp	420
#15	#13 OR #14	2446
#14	'eiseninject' OR 'ferinject' OR 'injectafer' OR 'iroprem' OR 'poly [dextro glucopyranosyl (1-4)] dextro gluconic acid complex of hydrated iron oxide' OR 'renegy' OR 'z 213' OR 'z213' OR 'ferric carboxymaltose'	2446
#13	'ferric carboxymaltose'/exp	2291
#12	#10 OR #11	1919
#11	'ami 7228' OR 'ami7228' OR 'feraheme' OR 'rienso' OR 'ferumoxytol'	1919
#10	'ferumoxytol'/exp	1793

#9	#7 OR #8	3303
#8	'alvofer' OR 'colliron' OR 'faremio' OR 'fer (iron saccharate) ' OR 'ferion' OR 'feriv' OR 'fermed' OR 'ferri saccharate' OR 'ferric hydroxide sucrose' OR 'ferric hydroxide sucrose complex' OR 'ferric oxide saccharate' OR 'ferric oxide, saccharated' OR 'ferric saccharate' OR 'ferrinemia' OR 'ferrisaccharate' OR 'ferrivenin' OR 'ferrologic' OR 'ferroprol' OR 'ferrous saccharate' OR 'ferrovin' OR 'fesin' OR 'hemafer s' OR 'hemafer-s' OR 'idafer' OR 'iron (iii) hydroxide sucrose complex' OR 'iron sucrose' OR 'ironcrose' OR 'iviron' OR 'nefro-fer' OR 'nefrofer' OR 'neo ferrum' OR 'nephroferol' OR 'proferrin' OR 'referen' OR 'reoxyl' OR 'saccharate ferric' OR 'saccharate iron' OR 'saccharated ferric oxide' OR 'saccharated iron oxide' OR 'sucro fer' OR 'sucrofer' OR 'sucroven' OR 'veniron' OR 'venofer' OR 'venotrix' OR 'xi 921' OR 'xi921' OR 'iron saccharate'	3303
#7	'iron saccharate'/exp	3013
#6	#4 OR #5	32729
#5	'bis (gluconato) iron' OR 'epitone' OR 'fenton' OR 'feragluc' OR 'ferdiv' OR 'fergon' OR 'ferlucon' OR 'ferolib' OR 'ferosac' OR 'ferralet' OR 'ferreluc' OR 'ferretti' OR 'ferrnat' OR 'ferrobival' OR 'ferrodue' OR 'ferrogluconate' OR 'ferroglyconicum' OR 'ferrogyn' OR 'ferrolysine' OR 'ferronat c' OR 'ferronicum' OR 'ferruten' OR 'glistron' OR 'gloros' OR 'gluco ferrum' OR 'glucofer' OR 'glucoferro' OR 'grofer' OR 'hemototal' OR 'iron bis (gluconate) ' OR 'iron gluconate' OR 'iron sodium gluconate' OR 'irox' OR 'loesferron' OR 'losferron' OR 'nionate' OR 'novifer' OR 'novoferrogluc' OR 'prifer' OR 'prontoferro' OR 'rafesac' OR 'simron' OR 'sustemial' OR 'sym fer' OR 'symfer' OR 'viofer' OR 'vitaferri' OR 'vitaferro' OR 'vitaferro brause' OR 'zaofer' OR 'ferrous gluconate'	32729
#4	'ferrous gluconate'/exp	3408
#3	#1 OR #2	4073
#2	'anaemex' OR 'cosmofer' OR 'dexferrum' OR 'dexiron' OR 'dextrafer' OR 'dextran fe' OR 'dextran ferrous' OR 'dextran iron' OR 'dextran iron complex' OR 'driken' OR 'fenate' OR 'fer dextran' OR 'fercayl' OR 'ferric dextran' OR 'ferridextran' OR 'ferrisat' OR 'ferrodex' OR 'ferrodextran' OR 'ferrous dextran' OR 'ferrum lek' OR 'fervetag' OR 'hibiron' OR 'imferdex' OR 'imferon' OR 'impheron' OR 'imposil' OR 'infed' OR 'infufer' OR 'iron dextran complex' OR 'iron-dextran complex' OR 'ironate' OR 'jerndextran' OR 'monofar' OR 'proferdex' OR 'uniferon' OR 'uniferon f' OR 'uniferon f 2' OR 'uniferron f' OR 'iron dextran'	4073
#1	'iron dextran'/exp	3293

Supplement 3 – CINeMA and GRADE

CINeMA – Hb level – 1 week – Overall analysis

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:FDI	2	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FCM:ISC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FDI:ISC	2	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
FDI:OFS	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
ISC:PCB	1	Major concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	["Within-study bias","Imprecision"]
FCM:OFS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FCM:PCB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FDI:PCB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
ISC:OFS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
OFS:PCB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]

CINeMA – Hb – 2 week – GOverall analysis

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:FDI	3	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FCM:ISC	1	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
FCM:OFS	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FDI:ISC	4	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:OFS	2	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FXM:ISC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FXM:PCB	1	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:FXM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FCM:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
FDI:FXM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
FXM:OFS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
ISC:OFS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
ISC:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
OFS:PCB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]

CINeMA – Hb 3 week – Overall analysis

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:FDI	2	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Heterogeneity"]
FCM:OFS	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
FDI:ISC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:OFS	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FFM:FXM	1	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
FXM:ISC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FXM:PCB	1	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
IDX:ISC	1	Major concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
ISC:OFS	2	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:FFM	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
FCM:FXM	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
FCM:IDX	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
FCM:ISC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
FCM:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
FDI:FFM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:FXM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:IDX	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
FFM:IDX	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FFM:ISC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FFM:OFS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
FFM:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Very low	["Within-study bias","Incoherence"]
FXM:IDX	0	Major concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FXM:OFS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
IDX:OFS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
IDX:PCB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Incoherence"]
ISC:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Very low	["Within-study bias","Incoherence"]
OFS:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Very low	["Within-study bias","Incoherence"]

CINeMA – Hb 4 week – Overall analysis

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
CAI:FCM	1	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
FCM:ISC	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FCM:OFM	1	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
FCM:OFS	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FDI:ISC	2	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FDI:OFS	2	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FSC:ISC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FXM:ISC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FXM:PCB	1	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
ISC:OLS	1	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
CAI:FDI	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
CAI:FSC	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
CAI:FXM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
CAI:ISC	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
CAI:OFM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
CAI:OFS	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
CAI:OLS	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
CAI:PCB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FCM:FDI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
FCM:FSC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:FXM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FCM:OLS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]
FCM:PCB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
FDI:FSC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:FXM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:OFM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
FDI:OLS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
FDI:PCB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
FSC:FXM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FSC:OFM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
FSC:OFS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FSC:OLS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FSC:PCB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
FXM:OFM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
FXM:OFS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FXM:OLS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
ISC:OFM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Heterogeneity","Incoherence"]
ISC:OFS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Imprecision","Incoherence"]

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
ISC:PCB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
OFM:OFS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
OFM:OLS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
OFM:PCB	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
OFS:OLS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
OFS:PCB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
OLS:PCB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]

CINeMA – Hb – 5 week – Overall analysis

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:FDI	3	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
FCM:FXM	1	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
FCM:IVSC	1	Major concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
FCM:OFS	1	Major concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
FDI:ISC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FFM:FXM	1	No concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Low	["Heterogeneity","Incoherence"]
FXM:ISC	3	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
FXM:PCB	1	No concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Moderate	["Incoherence"]
FCM:FFM	0	No concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Moderate	["Incoherence"]
FCM:ISC	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:PCB	0	No concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Moderate	["Incoherence"]
FDI:FFM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
FDI:FXM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:IVSC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:OFS	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]
FDI:PCB	0	No concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Moderate	["Incoherence"]
FFM:ISC	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
FFM:IVSC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FFM:OFS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FFM:PCB	0	No concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Moderate	["Incoherence"]
FXM:IVSC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FXM:OFS	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Incoherence"]
ISC:IVSC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
ISC:OFS	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Major concerns	Very low	["Within-study bias","Incoherence"]
ISC:PCB	0	No concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Moderate	["Incoherence"]
IVSC:OFS	0	Major concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
IVSC:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]
OFS:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Major concerns	Low	["Within-study bias","Incoherence"]

CINeMA – Hb – 6 week – Overall analysis

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
FCM:FDI	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FCM:ISC	2	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FCM:OFS	2	Some concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FCM:PCB	3	Some concerns	Low risk	No concerns	No concerns	No concerns	Some concerns	Low	["Within-study bias","Incoherence"]
FDI:ISC	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
ISC:OFS	3	No concerns	Low risk	No concerns	Major concerns	No concerns	Major concerns	Low	["Imprecision","Incoherence"]
OFS:SGC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	Some concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FCM:SGC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Some concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
FDI:OFS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	Some concerns	Low	["Imprecision","Incoherence"]
FDI:PCB	0	No concerns	Low risk	No concerns	No concerns	No concerns	Some concerns	Moderate	["Incoherence"]
FDI:SGC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Some concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
ISC:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Some concerns	Low	["Within-study bias","Incoherence"]
ISC:SGC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	Some concerns	Very low	["Within-study bias","Imprecision","Incoherence"]
OFS:PCB	0	Some concerns	Low risk	No concerns	No concerns	No concerns	Some concerns	Low	["Within-study bias","Incoherence"]
PCB:SGC	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	Some concerns	Very low	["Within-study bias","Heterogeneity","Incoherence"]

CINeMA – Hb – 8 week – Overall analysis

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
CTL:FCM	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FCM:ISC	2	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FCM:OFS	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FCM:SUI	1	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	[]
FDI:ISC	3	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FDI:OFS	2	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
FSC:ISC	1	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
ISC:OFS	2	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
ISC:OLS	1	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Moderate	["Heterogeneity"]
CTL:FDI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
CTL:FSC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
CTL:ISC	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
CTL:OFS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
CTL:OLS	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Moderate	["Imprecision"]
CTL:SUI	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	[]
FCM:FDI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FCM:FSC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
FCM:OLS	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	["Within-study bias","Heterogeneity"]
FDI:FSC	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
FDI:OLS	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	[]
FDI:SUI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
FSC:OFS	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
FSC:OLS	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	["Within-study bias","Imprecision"]
FSC:SUI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason (s) for downgrading
ISC:SUI	0	Some concerns	Low risk	No concerns	No concerns	No concerns	No concerns	Moderate	["Within-study bias"]
OFS:OLS	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	[]
OFS:SUI	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	[]
OLS:SUI	0	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	[]

GRADE

Outcome Hb

Comparison	Number of studies	Study bias	Inconsistency	Indirectness	Imprecision	Publication Bias	Confidence rating
FCM:FDI – 10w	1	Not serious	Not serious	Not serious	Serious*	Not serious	Moderate

Outcome Ferritin

Comparison	Number of studies	Study bias	Inconsistency	Indirectness	Imprecision	Publication Bias	Confidence rating
FCM:FDI – 7w	1	Not serious	Not serious	Not serious	Serious*	Not serious	Moderate
FCM:FDI – 10w	1	Not serious	Not serious	Not serious	Serious*	Not serious	Moderate
ISC:OFS – 20w	1	Not serious	Not serious	Not serious	Serious*	Not serious	Moderate

Transferrin Saturation

Comparison	Number of studies	Study bias	Inconsistency	Indirectness	Imprecision	Publication Bias	Confidence rating
FCM:FDI – 7w	1	Not serious	Not serious	Not serious	Serious*	Not serious	Moderate
FCM:FDI – 10w	1	Not serious	Not serious	Not serious	Serious*	Not serious	Moderate

Legend: * CI95% large.

Supplement 4 – Studies excluded.

Studies excluded
1. Barish CF, Koch T, Butcher A, Morris D, Bregman DB. Safety and Efficacy of Intravenous Ferric Carboxymaltose (750 mg) in the Treatment of Iron Deficiency Anemia: Two Randomized, Controlled Trials. Anemia. 2012:172104. doi: 10.1155/2012/172104. Epub 2012 Sep 10. PMID: 22997572; PMCID: PMC3444829.
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Supplement 5 - Reported outcomes by study

1st Author	Year	AAE	SAE	Hypo	Hb	TSAT	Ferr
Adkinson	2018	X	X		X	X	X
Agarwal	2006	X	X		X	X	X
Agarwal	2015		X		X	X	X
Ambrosy	2021	X	X	X	X	X	X
Anirban	2008	X	X		X	X	X
Anker	2009				X	X	X
Auerbach	2019	X	X	X	X	X	X
Bae	2023				X	X	X
Bailie	2010	X		X			
Beck-da-Silva	2014						X
Bertani	2021				X		X
Bhandari	2015	X	X	X	X	X	X
Birgegard	2016	X	X		X	X	X
Boomershine	2018	X			X	X	X
Charytan	2013	X	X		X	X	X
Derman	2017	X	X		X	X	X
Dhoot	2020		X		X	X	X
Emrich	2020			X	X	X	X
Evstatiev	2011	X	X	X	X	X	X
Ferrer-Barcelo	2019				X	X	
Ford	2016	X	X		X	X	X
Gybel-Brask	2018	X	X		X	X	X
Hedenus	2014	X	X		X	X	X
Hetzel	2014	X	X		X	X	X
Howaldt	2022	X	X		X		X
Howard	2022				X	X	X
Ikuta	2019	X			X	X	X
Jin	2024	X	X	X	X	X	X
Kalra	2016	X	X	X	X	X	X
Kalra	2022		X		X	X	X
Kulnigg	2008	X	X		X	X	X
Li	2008				X	X	X
Lindgreen	2009					X	
Macdougall	2014b	X	X		X	X	X
Macdougall	2019	X	X		X	X	X
Macdougall	2014a	X	X		X	X	X
Mahey	2016			X	X	X	X
Noronha	2017				X		
Onken	2013	X	X	X	X	X	X
Onken	2014	X	X	X	X	X	X
Patel	2024				X		
Pieracci	2014				X	X	X

Provenzano	2009	X	X		X	X	X
Qunibi	2010		X		X	X	X
Reinisch	2013	X	X		X	X	X
Roger	2017	X	X				
Saroj Vadhan	2014	X	X		X	X	
Schroder	2005	X			X	X	X
Tabish	2024			X	X		
Van Wyck	2005				X	X	X
Waziri	2016	X			X	X	X
Wolf	2018			X	X	X	X
Wolf	2020C1	X		X	X	X	X
Wolf	2020C2	X		X	X	X	X
Zahr	2024				X	X	X
Zoller	2023	X	X	X	X	X	X

Legend: AAE – Any adverse event, SAE – Serious Adverse Event, Hypo – Hypophosphatemia, Hb – Hemoglobin, TSAT – Transferrin Saturation, Ferr – Ferritin.

Supplement 6 - Studies' characteristics

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
Adkinson	2018	Comparative safety of intravenous ferumoxytol versus ferric carboxymaltose in iron deficiency anemia: a randomized trial	NCT02694978	Phase 3, randomized, multicenter	Centralized interactive web response system	Double-blind	Multicenter	18 years with IDA (hemoglobin <12.0 g/dL for women and <14.0 g/dL for men and transferrin saturation 20% or ferritin 100 ng/mL within 60 days of dosing) , and a history of unsatisfactory oral iron therapy or intolerance, or whom oral iron was considered medically inappropriate	FXM	510 mg	Day 1, 7 to 8 days later for a total cumulative dose of 1.02 g
									FCM	750 mg	Day 1, 7 to 8 days later for a total cumulative dose of 1.50 g
Agarwal	2006	A Randomized Controlled Trial of Oral versus Intravenous Iron in Chronic Kidney Disease	-	Randomized, controlled, multicenter	Computer-generated randomization schedule	Open-label	Multicenter	Adult (≥18 years) anemic, iron-deficient non-dialysis CKD (ND-CKD) patients (6 stage 3) not receiving erythropoiesis-stimulating agents (ESAs) .	SGC	250 mg	Once weekly
									OFS	325 mg	6 consecutive weeks
Agarwal	2015	A randomized trial of intravenous and oral iron in chronic kidney disease	REVOKE	Single center randomized trial	Permuted blocks	Open-label	Single center	Adult (≥18 years) have an estimated GFR (eGFR) by the 4-component MDRD formula of >20 and ≤ 60 ml/min/1.73m2 using IDMS-calibrated creatinine [32], anemia and iron deficiency.	ISC	200 mg	0, 2, 4, 6, and 8 weeks
									OFS	325 mg	8 consecutive weeks
Ambrosy	2021	Safety and Efficacy of Intravenous Ferric Derisomaltose Compared to Iron Sucrose for Iron Deficiency Anemia in Patients with Chronic Kidney Disease With and	FERWON-NEPHRO NCT02940860	Randomized, multicenter trial	According to the product label	Open-label	Multicenter	Non-dialysis-dependent chronic kidney disease (NDD-CKD) Iron deficiency anemia; Hemoglobin ≤11 g/dL; Serum ferritin ≤100 ng/mL (or ≤300 ng/mL if TSAT ≤30%) ; Stable dose of erythropoiesis-stimulating agents for 4 weeks prior to randomization (if used)	FDI	1000 mg	Single dose
									ISC	200 mg	Up to 5 times within the first 2 weeks
									FDI	1000 mg	Single dose
									ISC	200 mg	Up to 5 times within the first 2 weeks

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		Without Heart Failure									
Anirban	2008	The comparative safety of various intravenous iron preparations in chronic kidney disease patients	NI	Head-to–head, prospective, randomized	Computer-generated numbers	Open-label	Single center	Adult CKD patients either on conservative management or on renal replacement therapy; provided written consent to be included in the study; discontinued oral iron use during the study period	IDX	100 mg	Twice a week
									SGC	125 mg	Once a week
									ISC	100 mg	Twice a week
Anker	2009	Ferric carboxymaltose in patients with heart failure and iron deficiency	FAIR-HF study NCT00520780	Randomised, Controlled, Phase III Study	Central interactive voice-response system	Double-blind	Multicenter	Chronic heart failure NYHA class II or III; Left ventricular ejection fraction ≤40% (NYHA II) or 45% (NYHA III) ; Iron deficiency (ferritin <100 µg/L or 100-299 µg/L with transferrin saturation <20%) ; Hemoglobin level 95-135 g/L; ambulatory status	FCM	200 mg	Weekly during correction phase, monthly during maintenance phase
									PCB	4ml Saline Solution	Weekly during correction phase, monthly during maintenance phase
Auerbach	2019	A prospective, multi-center, randomized comparison of iron isomaltoside 1000 versus iron sucrose in patients with iron deficiency anemia; the FERWON-IDA trial	FERWON-IDA NCT02940886	Multicenter and randomized	Stratified block randomization	Open-label	Multicenter	≥18 years with IDA of different etiologies, and had intolerance or lack of response to oral iron or screening hemoglobin (Hb) , with Hb ≤11 g/dL, transferrin saturation (TSAT) <20%, and s-ferritin <100 ng/mL	FDI	1000 mg	Single dose
									ISC	200 mg	Five times
Bae	2023	Ferric carboxymaltose	NI		NR	Double-blind	Single center	Over 18 years old; diagnosed with IDA (Iron Deficiency	FCM	1500 mg	Twice

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		effects on restless legs syndrome and on brain iron in patients with iron deficiency anemia		Randomized, placebo-controlled				Anemia) ; Diagnosed with RLS (Restless Legs Syndrome) ; RLS symptoms more than three times per week; IRLS score over 15; Off all RLS medications for more than 14 days prior to baseline assessment	PCB	100 ml	Twice
Bailie	2010	Safety and tolerability of intravenous ferric carboxymaltose in patients with iron deficiency anemia	-	Phase 3, multicenter, randomized,noninferiorityand crossover study	NR	Double-blind	Multicenter	Adult (≥18 years) anemic, iron-deficiency patients	FCM	15 mg/kg (maximum dose of 1000 mg)	Day 0.On day 7, subjects were crossed over
									PCB	-	Day 0.On day 7, subjects were crossed over
Beck-da-Silva	2013	IRON-HF study: A randomized trial to assess the effects of iron in heart failure patients with anemia	IRON-HF	Randomized, placebo controlled clinical trial	NR	Double-blind	Multicenter	Adult (≥18 years) Stable ambulatory HF patients, with ejection fraction below 40% who were anemic by the World Health Organization (WHO) criteria	ISC	200 mg	Once a week, for 5 weeks and placebo of oral presentation, three times a day, for 8 weeks.
									OFS	200 mg	Three times a day, for 8 weeks and placebo of IV presentation once a week, for 5 weeks.
									PCB	-	Three times a day, for 8 weeks and placebo of IV presentation once a week, for 5 weeks.

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
Bertani	2021	Oral Sucrosomial Iron Is as Effective as Intravenous Ferric Carboxy-Maltose in Treating Anemia in Patients with Ulcerative Colitis	-	Prospective, randomized study	Computer-generated random	Open-label	Single center	Patients, who: (1) Were affected by UC in remission; (2) were 18-year older; (3) had mild-to-moderate anemia related to iron deficiency; (4) agreed to sign the informed consent to participate in the study.	FCM	1000 mg	Unclear
									SUI	60 mg after 30 mg	8 weeks since baseline and then 30 mg for 4 weeks
Bhandari	2015	A randomized, open-label trial of iron isomaltoside 1000 (Monofer®) compared with iron sucrose (Venofer®) as maintenance therapy in haemodialysis patients	NCT01222884	Randomized, non-inferiority trial	Interactive web response system	Open-label	Multicenter	Subjects ≥18 years of age with a diagnosis of CKD and on haemodialysis therapy for at least 90 days Hb concentration between 9.5 and 12.5 g/dL (inclusive both values) both at screening visit 1a and screening visit 1b (screening visits were separated by at least 1 week) , Serum-ferritin <800 ng/mL, TSAT <35%, erythropoiesis stimulating agent treatment with dose stable for the previous 4 weeks prior to screening, no IV iron or an average of no >100 mg/week for the previous 4 weeks, life expectancy beyond 12 months	FDI	500 mg	Once
									ISC	500 mg	Once
Birgegard	2016	A Randomized Noninferiority Trial of Intravenous Iron Isomaltoside versus Oral Iron Sulfate in Patients with Nonmyeloid	PROFOUND TRIAL NCT0114-5638	Randomized, non-inferiority trial	Stratified block randomization methodology	Open-label	Multicenter	Adult (≥18 years) diagnosed with nonmyeloid malignancies, receiving chemotherapy (at least 1 day) prior to screening and had at least two more chemotherapy cycles planned, and had a Hb level	FDI	Calculated by onbody weight and Hb	1–4 doses at weekly intervals)

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		Malignancies and Anemia Receiving Chemotherapy: The PROFOUND Trial						lower than 12.0 g/dl, TSAT less than 50%, serum ferritin level lower than 800 lg/L	OFS	200 mg	Daily for 12 weeks with 200 mg given as 100 mg twice/day
Boomershine	2018	A Blinded, Randomized, Placebo-Controlled Study to Investigate the Efficacy and Safety of Ferric Carboxymaltose in Iron-Deficient Patients with Fibromyalgia	NCT02409459	Randomized, Placebo-Controlled Study	Electronic data capture system	Double-blind	Single center	Men and women ≥ 18 years old provided they had a diagnosis of fibromyalgia, score ≥ 60 on the FIQR and used narcotics for ≥ 30 days.	FCM	1500 mg	Maximum of 2 doses
									PCB	15 cc Saline Solution	Maximum of 2 doses
Charytan	2013	Intravenous ferric carboxymaltose versus standard medical care in the treatment of iron deficiency anemia in patients with chronic kidney disease: a randomized, active-controlled, multi-center study	NCT00548691	Phase 3 and randomized trial	Centralized interactive voice-response system	Open-label	Multicenter	Age 18-85 years; At least a 3-month history of NDD-CKD or At least a 6-month history of HD-CKD; For NDD-CKD: Hb ≤11.5 g/dL, TSAT ≤30%, ferritin ≤300 ng/mL; For HD-CKD: Hb ≤12.5 g/dL,; TSAT ≤30%, ferritin ≤500 ng/mL; NDD-CKD patients: No IV iron use within 1 month prior to the study; HD-CKD patients: no anticipated need for >200 mg of IV iron during the 30-day study period	FCM	NDD-CKD = 15 mg/kg up to 1000 mg	Single dose
									SCA	Determined by the investigator	determined by the investigator
									FCM	HD-CKD 200 mg	Single dose
									SCA	Determined by the investigator	Determined by the investigator

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
Derman	2017	A randomized trial of iron isomaltoside versus iron sucrose in patients with iron deficiency anemia	PROVIDE NCT02130063	Randomized, non inferiority trial	NR	Open-label	Multicenter	Patients 18 years of age or older; moderate-to-severe iron deficiency anemia (IDA) ; documented intolerance or unresponsiveness to oral iron; Hemoglobin (Hb) <11.0 g/dL; Transferrin saturation (TSAT) <20%; Serum ferritin (s-ferritin) <100 ng/mL	FDI	1000 mg to 2000 mg	Single or two administrations - one week apart
									ISC	200 mg maximum cumulative 2000 mg	Twice a week
Dhoot	2020	Effect of ferric-carboxy maltose on oxygen kinetics and functional status in heart failure patients with iron deficiency	-	Prospective, parallel, randomized controlled trial	Sequence of random numbers	Open-label	Unclear	Severe anemia (Hb<8 g/dl, requiring blood transfusion within 30 days) , chronic liver disease, vitamin B12 deficiency (<200 pg/dl) , serum folate deficiency (7 nmol/l)	FCM	Unclear	Unclear
									SCA	Unclear	Unclear
Emrich	2020	Hypophosphatemia after high-dose iron repletion with ferric carboxymaltose and ferric derisomaltose-the randomized controlled HOMe aFers study	HOMe aFers study NCT02905539	Randomized and comparative study	Computer-based system	Double-blind	Single center	Adult women (18 years or older) with iron deficiencyanemia due to uterine bleeding in whom oral iron reple-tion was not tolerated or not efficient were invited toparticipate in our HOMe aFers trial. Anemia was defined following the WHO criteria ashemoglobin (Hb) < 12 g/dL	FDI	20 mg/kg up maximum of 1000 mg	Once
									FCM	20 mg/kg up maximum of 1000 mg	Once
Evstatiev	2011	FERGIcor, a randomized controlled trial on ferric	FERGIcor Trial NCT00810030	Randomized, controlled	Computer-generated list and stratified	Open-label	Multicenter	Iron deficiency anemia (Hb 7-12 g/dL [female] or 7-13 g/dL [male]) ; Ferritin <100 g/L; Mild to moderate IBD	FCM	500 mg or 1000 mg	Once week

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		carboxymaltose for iron deficiency anemia in inflammatory bowel disease			by gender and disease			Crohn's disease (CD) (CD with CDAI <220 or UC with CAI ≤7) or IBD in remission (CDAI <150 or CAI ≤4) ; Normal levels of vitamin B-12 and folic acid; Age 18 years or older, nonpregnant	ISC	200 mg	5 weeks
Ford	2016	Ferumoxytol versus placebo in iron deficiency anemia: efficacy, safety, and quality of life in patients with gastrointestinal disorders	NCT01114139	Phase III, randomized, placebo-controlled,	Unclear	Double-blind	Multicenter	Males and nonpregnant; nonbreastfeeding females aged 18 years or older; Serum hemoglobin (Hgb) level between 70 g/L and less than 100 g/L; Transferrin saturation (TSAT) value less than 20%; Failure of oral iron therapy or intolerance to oral iron	FXM	510 mg	Two doses
									PCB	NR	Two doses
Gybel-Brask	2018	Intravenous iron isomaltoside improves hemoglobin concentration and iron stores in female iron-deficient blood donors: a randomized double-blind placebo-controlled clinical trial	NCT01895231	Randomized, comparative trial	Permuted block randomization	Double-blind	Single center	Women at least 18 years of age, who were first-time donors and had a plasma ferritin (p-ferritin) concentration of less than 60 ng/mL were	FDI	NR	Single dose
									PCB	-	Single dose
Hedenus	2014	Intravenous iron alone resolves anemia in patients with functional iron deficiency and lymphoid malignancies undergoing chemotherapy	NCT01101399	Rrandomized, controlled, prospective trial	Predefined list using computer-generated randomization	Open-label	Multicenter	Adult patients with lymphoid malignancies (indolent non-Hodgkin's lymphoma, multiple myeloma, or chronic lymphocytic leukemia) , anemia [hemoglobin (Hb) 8.5–10.5 g/dL], and FID [TSAT B 20 % and serum ferritin [30 ng/mL (women) or [40	FCM	500 mg or 1000 mg based kg	Once a week
									CTL	Unclear	Unclear

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
								ng/mL (men)] who had received antineoplastic therapy for C8 weeks			
Hetzel	2014	A Phase III, randomized, open-label trial of ferumoxytol compared with iron sucrose for the treatment of iron deficiency anemia in patients with a history of unsatisfactory oral iron therapy	NCT01114204	Active-controlled, phase III study	Unclear	Open-label	Multicenter	Male and female patients 18 years of age, Hgb >7 to <10 g dL21, transferrin saturation (TSAT) <20%, and history of unsatisfactory oral iron therapy or intolerance to oral iron	FXM	510 mg	Day 1 and 5
									ISC	200 mg	Five nonconsecutive days over a 14-day
Howaldt	2022	Long-Term Effectiveness of Oral Ferric Maltol vs Intravenous Ferric Carboxymaltose for the Treatment of Iron-Deficiency Anemia in Patients With Inflammatory Bowel Disease: A Randomized Controlled Noninferiority Trial	EudraCT 2015-002496-26 NCT02680756	Phase 3b, randomized controlled trial	Centrally (unclear)	Open-label	Multicenter	Patients aged 18 years or older, with quiescent or mild to moderate IBD and they had IDA	OFM	30 mg	Twice daily for ≥12 weeks
									FCM	1000 mg to 5500 mg	12 week
Howard	2022	Supplementation with Iron in Pulmonary Arterial Hypertension	NCT01447628	Randomized, comparative study	Stratified by sex with an appropriate fixed block size	Double-blind	Multicenter	Patients with idiopathic or heritable PAH and iron deficiency and who had been stable on their current therapy for the preceding 1 month were recruited. PAH was defined by a resting mean pulmonary artery	FCM	1,000 mg (or 15 mg/kg if weight ,66.7 kg)	Single infusion - crossover after 12 weeks

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
								pressure >25 mm Hg, pulmonary artery wedge pressure <15 mm Hg, and normal or reduced cardiac output on right heart catheterization.	PCB	NR	Single infusion - crossover after 12 weeks
							Single center		IDX	20 mg/kg	Single infusion - crossover after 12 weeks
									PCB	NR	Single infusion - crossover after 12 weeks
Ikuta	2019	Comparison of efficacy and safety between intravenous ferric carboxymaltose and saccharated ferric oxide in Japanese patients with iron-deficiency anemia due to hypermenorrhea: a multi-center, randomized, open-label noninferiority study	NCT02731534	Randomized, noninferiority study	Central registration system for allocation	Open-label	Multicenter	Mean Hb levels 6.0-11.0 g/dL; with less than 1.0 g/dL difference between two measurements; Serum ferritin levels < 12 ng/mL in Screening; Awareness of hypermenorrhea in each menstrual cycle for 6 months before screening; Outpatients aged 18-50 years	FCM	500 mg	Intervals of at least1 week
									SFO	80 mg or 120 mg	2 or 3 times per week
Jin	2024	A randomized, controlled, open label non-inferiority trial of intravenous ferric carboxymaltose versus iron sucrose in patients with iron deficiency anemia in China	NCT03591406	Randomized, controlled trial	Interactive response technology system.	Open-label	Multicenter	18 years or older, Hb levels < 11 g/dL for females or < 12 g/dL for males, microcytic hypochromic anemia (mean corpuscular Hb concentration < 320 g/L, mean corpuscular volume (MCV) < 80 fL, mean corpuscular Hb (MCH) < 27 pg) , transferrin saturation (TSAT) < 16%, and serum ferritin < 100 μg/L in the presence of underlying inflammatory conditions, as	FCM	500-1000 mg	Unclar
									ISC	Calculated by onbody weight and Hb	with a maximum of three doses per week and up to a total of 11 injections

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
								indicated by highsensitivity C-reactive protein (hsCRP) above the normal range (1–3 mg/L) , or serum ferritin < 15 µg/L in the absence of inflammatory conditions (hsCRP within the normal range)			
Kalra	2016	A randomized trial of iron isomaltoside 1000 versus oral iron in non-dialysis-dependent chronic kidney disease patients with anaemia	NCT01102413	Randomized, non-inferiority trial	Stratified block - web response system	Open-label	Multicenter	≥18 years of age with estimated glomerular filtration rate (eGFR) between 15 and 59 mL/min/1.73 m2, Hb <11.0 g/dL, either or both serum ferritin <200 µg/L and TSAT <20% and had not received ESA treatment within 8 weeks prior to screening	FDI	500 mg	Once weekly (2 doses)
									OFS	100 mg	Daily for 8 weeks
Kalra	2022	Intravenous ferric derisomaltose in patients with heart failure and iron deficiency in the UK (IRONMAN): an investigator-initiated, prospective, randomised, openlabel, blinded-endpoint trial	IRONMAN NCT02642562	Investigator-initiated, randomized, blinded-endpoint, event-driven trial	Web-based system	Open-label	Multicenter	18 years or older, with new or established symptomatic heart failure, evidence of iron deficiency (serum ferritin <100 µg/L or transferrin saturation <20%) , and a left ventricular ejection fraction of 45% or less within the preceding 24 months	FDI	According to weight and haemoglobin	Unclear
									SCA	Unclear	Unclear
									FDI	According to weight and haemoglobin	Unclear
									SCA	Unclear	Unclear
Kulnigg	2008	A Novel Intravenous Iron Formulation for	FERINJECT	Randomized, controlled	Central randomization system	Open-label	Multicenter	Patients with IDA (defined by Hb ≤10 g/dL and transferrin saturation [TfS]	FCM	According to weight	Weekly - maximum 3 doses

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		Treatment of Anemia in Inflammatory Bowel Disease: The Ferric Carboxymaltose (FERINJECT) Randomized Controlled Trial		phase III study				<20%, or serum ferritin <100 µg/L)	OFS	According to weight	Weekly - maximum 3 doses
Li	2008	Intravenous Iron Sucrose in Chinese Hemodialysis Patients with Renal Anemia	-	Randomized, controlled, parallel-group trial.	Computer-generated random number list	NR	Single center	Patients were included in the study if they were on maintenance hemodialysis, hemodialysis frequency 2–3 times/week, their condition had been stable for at least 1 month, they had serum ferritin (SF) ! 500 ng/ml, transferrin saturation (TSAT) ! 30%, Hb concentration 60–90 g/l, and Hct of 0.18–0.27.	ISC	100 mg	Twice a week in the first 8 weeks, then once a week after this.
									FSC	200 mg	12 weeks
Lindgreen	2009	Intravenous iron sucrose is superior to oral iron sulphate for correcting anaemia and restoring iron stores in IBD patients: A randomized, controlled, evaluator-blind, multicentre study	-	Randomized, controlled, evaluator-blind study	Over the Internet, by applying the minimization method	Single-blind (observer blind)	Multicenter	Males and females aged 1885 years suffering from UC or CD. The patients had B-Hb levels B115 g/L, verified at least twice (within 3 months) and S-ferritin concentrations B300 mg/L and iron deficiency defined by S-iron, transferrin and transferrin saturation (TSAT) .	ISC	200 mg	Once a week or every second
									OFS	100 mg	Once a week
Ferrer-Barcelo	2019	Randomised clinical trial: intravenous vs oral iron for the treatment of anaemia after acute	-	Randomized unblinded study	Alternating sequence in order of enrolment controlled by the principle investigator	Open-label	Single center	Non-variceal (aged >18 years) and subsequent diagnosis of anaemia secondary to acute GIB (Hb <10 g/dL on the day of hospital discharge, Day 0)	FCM	1500 or 2000 mg	Day 0 and Day 7
									OFS	650 mg	6 weeks

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		gastrointestinal bleeding									
Macdougall	2014 b	A randomized comparison of ferumoxytol and iron sucrose for treating iron deficiency anemia in patients with CKD	NCT01052779	Randomized, international, phase II trial	Unclear	Open-label	Multicenter	Hemoglobin < 11.0 g/dl; Transferrin saturation < 30%; eGFR < 60 ml/min per 1.73 m^2 or a diagnosis of CKD (e.g., nephropathy or nephritis) ; Age ≥ 18 years; Hemoglobin ≥ 7 g/dl	FXM	510 mg	2 dose until 1.02 g
									ISC	100 or 200 mg	Between 3 or 5 dose - Max 1.0g
Macdougall	2019	Ferumoxytol for iron deficiency anemia in patients undergoing hemodialysis. The FACT randomized controlled trial	FACT NCT01227616	Phase 4, randomized study	Unclear	Open-label	Multicenter	Adults (aged ≥ 18 years) with CKD undergoing hemodialysis for ≥ 3 months before screening with IDA (defined as hemoglobin levels at screening of < 11.5 g/dL and transferrin saturation (TSAT) < 30%) were included.	FXM	1.02 g	Day 1 and Day 5 -8
									ISC	1g	Daily for 10 days
Macdougall	2014 a	FIND-CKD: a randomized trial of intravenous ferric carboxymaltose versus oral iron in patients with chronic kidney disease and iron deficiency anaemia	FIND-CKD NCT00994318	Prospective, randomized study	Block via central interactive	Open-label	Multicenter	Adult (≥18 years) patients with nondialysis-dependent CKD were eligible if (i) at least one Hb level was between 9 and 11 g/dL within 4 weeks of randomization; (ii) any ferritin level was <100 or <200 µg/L with transferrin saturation (TSAT) <20%, within 4 weeks of randomization; (iii) estimated glomerular filtration rate (eGFR) was ≤60 mL/ min/1.73 m2 [Modification of Diet in Renal Disease-4 (MDRD-4) equation [22]], the rate of eGFR loss was ≤12 mL/min/1.73 m²/year and	FCM	Adjusterd by ferritin level	Day 0, 7 and every 4 week
									OFS	100 mg	Twice dailt to Week 52

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
								predicted eGFR at 12 months was ≥15 mL/min/1.73 m2; and (iv) no ESA had been administered within 4 months of randomization.			
Mahey	2016	Randomized controlled trial comparing ferric carboxymaltose and iron sucrose for treatment of iron deficiency anemia due to abnormal uterine bleeding	CTRI/2015/09/006224	Prospective randomized controlled trial	Computerized table	Open-label	Single center	Eligible patients were older than 18 years of age, had a84 serum hemoglobin concentration of 60.0–109.9 g/L, were experiencing85 heavy uterine bleeding with a pictorial bleeding assessment chart86 (PBAC) score higher than 100, and did not intend to conceive during87 the 3-month study period.	FCM	Up to 1000 mg	Once per week
									ISC	300 mg	Twice a week
Noronha	2017	Phase III randomized trial comparing intravenous to oral iron in patients with cancer-related iron deficiency anemia not on erythropoiesis stimulating agents	CTRI/2016/01/006520	Randomized controlled phase III trial.	Computer generated schedule with block	Open-label	Single center	Over 18 years old with malignancy requiring chemotherapy, who had hemoglobin (Hb) level <12 g/dL with at least one feature indicating iron deficiency: serum ferritin <100 mcg/mL, transferrin saturation <20% or hypochromic red blood cells >10%. Vitamin B12 and folate levels had to be adequate.	ISC	Calculated by onbody weight and Hb	Two doses,before cycle 1 and 2
									OFS	100 mg	Three times a day
Onken	2013	A multicenter, randomized, active-controlled study to investigate the efficacy and safety of intravenous ferric carboxymaltose in	NCT00982007	Randomized, active-controlled trial	Interactive voice response system	Open-label	Multicenter	Age at least 18 years; Screening hemoglobin (Hb) not more than 11 g/dL; Ferritin level not more than 100 ng/mL or not more than 300 ng/mL when TSAT not more than 30%; Met all other eligibility criteria (refer to Appendix Table S1) ;	FCM	15 mg/kg (maximum dose of 750 mg)	Days 0 and 7
									OFS	325 mg	Three times a day

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		patients with iron deficiency anemia						Tolerated a 14-day run-in of oral ferrous sulfate without severe side effects; Unsatisfactory response to oral iron (Hb increase <1 g/dL from baseline with ≥67% compliance) ; Ferritin and TSAT values within inclusion criteria ranges after run-in	FCM	15 mg/kg (maximum dose of 750 mg)	Days 0 and 7
									IVSC	Variable	Variable
Onken	2014	Ferric carboxymaltose in patients with iron-deficiency anemia and impaired renal function: the REPAIR-IDA trial	REPAIR-IDA NCT00981045	Randomized, active-controlled, noninferiority trial	Interactive voice response system	Single-blind	Multicenter	Age ≥18 years; Hemoglobin ≤11.5 g/dL; Chronic renal impairment with GFR <60 mL/min/1.73 m^2 on two consecutive measurements, or GFR <90 mL/min/1.73 m^2 with additional kidney damage or elevated cardiovascular risk; Two hemoglobin concentrations within 0.7 mg/dL of each other, measured within 7 days, averaging ≤11.5 g/dL; Ferritin ≤100 ng/mL, or ferritin ≤300 ng/mL with TSAT ≤30%; Stable ESA dose (±20%) for 4 weeks prior to randomization; Iron-deficiency anemia diagnosis	FCM	15 mg/kg (maximum dose of 750 mg)	Days 0 and 7
									ISC	200 mg	Days 0, 7 and 14, with two additional doses
Patel	2024	Randomised Controlled Trial Evaluating the Impact of Intravenous Iron (ferric carboxymaltose) Supplementation Among Epithelial Ovarian Cancer	"Registry-India" (REF/2019/05/025907)	Parallel-group randomized controlled trial	Web based service	Single-blind (observer blind)	Single center	Age 18–75 years; diagnosis of epithelial ovarian carcinoma; patients on the ≤ 3rd cycle of adjuvant chemotherapy after primary cytoreductive surgery or who underwent interval cytoreductive surgery after receiving ≤ 3 neoadjuvant chemotherapy; normal liver and kidney function; no prior	FCM	1000 mg	Single tablet
									FAS	100 mg	Twice a day for 90 days

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		Patients with Anemia						radiotherapy; Eastern Cooperative Oncology Group performance status of ≤ 2; baseline hemoglobin levels of ≤ 10 g/dl during cancer treatment or decrease of > 2 g/dl in hemoglobin level during cancer treatment.			
Pieracci	2014	A multicenter, randomized clinical trial of IV iron supplementation for anemia of traumatic critical illness*	NCT01180894	Randomized, placebo controlled	Computer-generated block	Single-blind	Multicenter	Anemia (hemoglobin < 12 g/dL) ; Age ≥ 18 years; ≤ 72 hours from ICU admission; Expected ICU LOS ≥ 5 days	ISC	100 mg	Thrice weekly
									PCB	100 mg	Thrice weekly
Provenzano	2009	Ferumoxytol as an Intravenous Iron Replacement Therapy in Hemodialysis Patients	NCT00233597	Randomized, controlled, phase III trial	Telephone based system	Open-label	Multicenter	>18 yr of age, on HD for at least 90 d, hemoglobin 11.5 g/dl, transferrin saturation (TSAT) 30%, serum ferritin 600 ng/ml, and stable (25%) dose ESA therapy for at least 10 d before dosing.	FXM	2x510 mg	Two doses
									FFM	200 mg	200 mg/daily for 21 d.
Qunibi	2010	A randomized controlled trial comparing intravenous ferric carboxymaltose with oral iron for treatment of iron deficiency anaemia of non-dialysis-dependent chronic kidney disease patients	-	Phase 3, randomized trial	Stratified by severity	Open-label	Multicenter	Subjects ≥12 years of age with estimated glomerular filtration rate (GFR) ≤45 mL/min/1.73 m2, Hb level ≤11 g/dL, TSAT ≤25% and ferritin ≤300 ng/mL were enrolled.	FCM	15 mg/kg (maximum dose of 1000 mg)	Day 17 and Day 31
									OFS	325 mg	Meals three times daily
Reinisch	2013	A Randomized, Open-Label, Non-	-	Randomized, comparative,	Permuted block randomization	Open-label	Multicenter	≥ 18 years of age with a diagnosis of IBD and a score	FDI	1000 mg	Single once weekly

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		Inferiority Study of Intravenous Iron Isomaltoside 1,000 (Monofer) Compared With Oral Iron for Treatment of Anemia in IBD (PROCEED)		noninferiority study				of ≤ 5 on the Harvey – Bradshaw index for Crohn ' s disease (25) or a partial Mayo score of ≤ 6 for ulcerative colitis (26) , a Hb < 12 g / dl (7.45 mmol / l) , and a transferrin saturation (TSAT) < 20 %	OFS	200 mg	Daily for 8 weeks
Roger	2017	Safety of intravenous ferric carboxymaltose versus oral iron +C90in patients with nondialysis-dependent CKD: an analysis of the 1-year FIND-CKD trial	FIND-CKD NCT00994318	Randomized, three-arm study	NR	Open-label	Multicenter	Adult patients with nondialysis-dependent CKD were eligible if (i) at least one Hb level was 9–11 g/dL; (ii) any ferritin level was <100 mg/L, or <200 mg/L with TSAT <20%; (iii) estimated glomerular filtration rate (eGFR) was 60 mL/min/1.73 m2	FCM	400-600	Unclear
									FCM	100-200	Unclear
									OFS	304 mg	(100mg of iron) twice daily to Week 52
Saroj Vadhan	2014	Efficacy and safety of IV ferumoxytol for adults with iron deficiency anemia previously unresponsive to or unable to tolerate oral iron	NCT01114139	Randomized, placebo-controlled study	Interactive Voice system	Double-blind	Multicenter	Women 18 years of age with a history of IDA, defined as a hemoglobin (Hgb) level <10.0 g/dL and a transferrin saturation (TSAT) <20%, and a history of unsatisfactory oral iron therapy or in whom oral iron could not be used	FXM	510 mg	Day 1, with a second dose 2–8 days later
									PCB	NR	NR
Schroder	2005	Intravenous Iron Sucrose versus Oral Iron Supplementation for the Treatment of Iron Deficiency Anemia in Patients with Inflammatory Bowel Disease—A Randomized, Controlled, Open-	-	Randomized, controlled, clinical trial	Computer-generated random number table	Open-label	Multicenter	Patients with an IDA as defined by a hemoglobin (Hb) concentration of ≤1.05 g/L (females) or Hb ≤1.10 g/L (males) plus a transferrin saturation (TSAT) ≤20% and/or serum ferritin concentrations ≤20 µg/L	ISC	7 mg/kg	One dose
									OFS	100-200 mg	100–200 mg per day for 6 wks

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		Label, Multicenter Study									
Tabish	2024	Randomized Controlled Trial of Intravenous Ferric Carboxymaltose vs Oral Iron to Treat Iron Deficiency Anemia After Variceal Bleed in Patients With Cirrhosis	CTRI/2022/11047650	Randomized controlled trial with a superiority design	Computer-generated random number table	Open-label	Single center	Patients 18 years and older, who had cirrhosis due to any etiology, and who had presented with variceal bleed with hemoglobin less than 10 g/dL and iron deficiency (ferritin,100 ng/L)	FCM	1500 to 2000 mg	Day 0 and day 7
									CAI	100 mg	12 weeks
Van Wyck	2005	A randomized, controlled trial comparing IV iron sucrose to oral iron in anemic patients with nondialysis-dependent CKD	-	Phase III, randomized, trial	NR	Open-label	Multicenter	Anemic patients with stage 3 to 5 ND-CKD who required iron supplementation,	ISC	1000 mg	Day 0 and day 14
									OFS	500 mg	Daily, for 56 days
Waziri	2016	Comparison of intravenous low molecular weight iron dextran and intravenous iron sucrose for the correction of anaemia in pre-dialysis chronic kidney disease patients: a randomized single-centre study in Nigeria	NI	Randomized trial and prospective	Permuted block	Open-label	Single center	Pre-dialysis stages 3-5 CKD patients; Aged ≥18 years; ESA and intravenous iron naïve; Hb ≤11.0 g/dL; Ferritin <200 ng/mL; TSAT <25%	IDX	250 mg	Four divided doses
									ISC	200 mg	Five divided doses over 10 days
Wolf	2018	Randomized trial of intravenous	FIRM trial NCT02694978		Centralized Interactive	Double-blind	Multicenter	≥18 years; Hemoglobin <12.0 g/dl for women or	FXM	510 mg	Day 1 and Day 8

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
		iron-induced hypophosphatemia		Phase III, Randomized, Multicenter	Voice or web Response System			<14.0 g/dl for men; Transferrin saturation (TSAT) ≤20%; Ferritin ≤100 ng/ml; Previous intolerance or insufficient response to oral iron, not pregnant	FCM	750 mg	Day 1 and Day 8
Wolf	2020	Effects of Iron Isomaltoside vs Ferric Carboxymaltose on Hypophosphatemia in Iron-Deficiency Anemia Two Randomized Clinical Trials	NCT03238911 and NCT03237065	Randomized clinical trial	Interactive web response system	Double-blind	Multicenter	18 years and older; Iron-deficiency anemia (hemoglobin ≤11 g/dL) ; Serum ferritin ≤100 ng/mL; Intolerance or unresponsiveness to 1 month or more of oral iron; Body weight 50 kg or more; Estimated glomerular filtration rate ≥65 mL/min/1.73 m^; Serum phosphate level ≥2.5 mg/dL; No acute bleeding >500 mL within 72 hours before study inclusion; No hemochromatosis or other iron-storage disorder; No intravenous iron use within 30 days prior to screening	FDI	1000 mg	Single dose
									FCM	750 mg	Day 0 and 7
Zahr	2024	Oral Liposomal Iron Versus Injectable Iron Sucrose for Anemia Treatment in Non-dialysis Chronic Kidney Disease Patients: A Noninferiority Study	NCT06556134	Randomized controlled trial	Sequentially numbered, sealed envelopes.	NR	Single center	Participants were required to be over 18 years of age, with an estimated glomerular filtration rate (eGFR) of ≤60 mL/min/1.73 m² (using the Modification of Diet in Renal Disease equation, MDRD) , Hb levels ≤12 g/dL, ferritin levels ≤100 ng/mL, transferrin saturation (TSAT) ≤25%, and parathyroid hormone (PTH) serum levels between 30 and 300 pg/mL	ISC	100 mg	Weekly for three months
									OLS	30 mg	Three months

1st Author	Year	Title	Trial name and/ or Trial number	Study design	Randomization	Blinding	Study setting	Inclusion criteria	Arms	Dose	Frequency of administration
Zoller	2023	Hypophosphataemia following ferric derisomaltose and ferric carboxymaltose in patients with iron deficiency anaemia due to inflammatory bowel disease (PHOSPHARE-IBD) : a randomised clinical trial	PHOSPHARE-IBD 2017-002452-87	Randomised, clinical trial	Interactive web response system	Double-blind	Multicenter	Adults aged ≥18 years; Diagnosed with IBD and IDA; Haemoglobin (Hb) <13 g/dl; Serum ferritin ≤100 ng/mL; History of intolerance or unresponsiveness to oral iron, or clinical need to administer iron rapidly; Body weight ≥50 kg; Estimated glomerular filtration rate ≥65 mL/min/1.73 m^; Serum phosphate >2.5 mg/dL.	FDI	20 mg/kg (maximum dose of 1000 mg)	Single or double infusion
									FCM	20 mg/kg (maximum dose of 1000 mg)	Single or double infusion

Legend: NR: - No reported, CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI – Sucrosomial Iron.

Supplement 7 – Patients characteristics.

Study	Treatment	n	% male	Age ∑ ± SD	Weight ∑ ±SD	Hb ∑ ±SD	TSAT ∑ ±SD	FER ∑ ± SD	Sponsor	Patients
Adkinson, 2018	FXM	997	25.5	55.6±17.3	84.3±24.9	10.4±1.5	13.9±28.4	54.3±115.4	AMAG Pharmaceuticals, Inc	Anemia caused by different etiologies
	FCM	1000	22.4	54.8±17.0	85.8 (26.0)	10.4 (1.5)	13.9 (25.0)	55.1±120.2		
Agarwal, 2006	SGC	44	44.4	65.5±12.9	86.6±21.5	10.5±0.9	17.2±7.9	72.5±72.9	Watson Laboratories Inc.	Chronic kidney disease
	OFS	45	38.5	62.3±15.2	90.0±30.7	10.7±0.9	17.9±6.5	66.4±52.2		
Agarwal, 2015	ISC	67	74.6	63.2±10.7	NR	10.7±1	17.4±5.1	173±138	Amgen	Chronic kidney disease
	OFS	69	78.3	67.8±11.5	NR	10.5±1	17.3±6.7	133±155		
Ambrosy, 2021	FDI	158	45	69 (IQR 62−80)	93 (IQR 73−111)	9.6 (IQR 8.7−10.1)	14 (IQR 11−19)	70 (IQR 29−124)	Pharmacosmos A/S	Chronic Kidney Disease With and Without Heart Failure
	ISC	86	49	70 (IQR 60−77)	86 (IQR 74−101)	9.5 IQR (8.7−10.1)	14 IQR (10−19)	58 (IQR 28−122)		
	FDI	861	37	69 (IQR 61−76)	82 (IQR 69−97)	9.8 IQR (9.0−10.5)	16 IQR (11−21)	52 (IQR 23−111)		
	ISC	120	33	71 (IQR 64−78)	78 (IQR 68−92)	9.8 IQR (9.1−10.5)	17 IQR (12−21)	60 (IQR 25−124)		
Anirban, 2008	IDX	113	63.7	40.26±13.21	NR	7.7±1.21	17.5±5.96	140.1±78.26	Not described	Chronic Kidney Disease
	SGC	110	71.8	44.87±13.8	NR	7.8±1.43	17.5±4.95	126.8±79.93		
	ISC	116	72.4	44.93±13.54	NR	7.7±1.37	17±5.49	126.2±88.38		
Anker, 2009	FCM	304	47.7	67.8±10.3	77.0±14.2	11.9 ±1.3	17.7±12.6	52.5±54.5	Vifor Pharma	Heart Failure
	PCB	155	45.2	67.4±11.1	77.6±16.3	11.9 ±1.4	16.7±8.4	60.1±66.5		
Auerbach, 2019	FDI	1009	11.6	44.1±14.8	NR	9.25±1.28	7.43±10.93	14.4±42.6	Pharmacosmos A/S	IDA caused by different etiologies
	ISC	503	9.3	43.8±14.4	NR	9.17±1.27	6.69±7.44	11.9±37.6		
Bae, 2023	FCM	15	13.3	42.10±7.11	NR	10.16±1.55	4.67 ± 3.64	3.73±2.56	Partly supported by NIH NIBIB	Restless legs
	PCB	14	0.7	46.25±4.53	NR	10.08±1.01	6.75±3.62	3.05±0.91		
Bailie, 2010	FCM	594	11.8	41.9±16.7	80.6±20.7	10.±1.2	9.46±5.9	32.9±50.2	NR	IDA caused by different etiologies
	PCB	559	NR	NR	NR	NR	NR	NR		
Beck-da-Silva, 2014	ISC	10	66.7	66.9±8.3	NR	11.2±0.6	18.9± 9.7	185± 146	NR	Heart failure patients
	OFS	7	75	63.5±16.2	NR	11.3±0.5	18.8± 8.6	101± 135		
	PCB	6	66.7	68.9±10.1	NR	10.9±0.7	13.5± 5.8	95± 128		
Bertani, 2021	FCM	20	60	43.5 (IQR 31.5–66.8)	NR	10.3 (IQR 9.0–11.0)	NR	10 (IQR 5–13)	Pharmanutra S.p.A (Pisa, Italy)	Ulcerative colitis
	SUI	20	55	42.0 (IQR 29.5–60.8)	NR	11.1 (IQR 9.9–11.6)	NR	16 (IQR 9–25)		

Study	Treatment	n	% male	Age ∑ ± SD	Weight ∑ ±SD	Hb ∑ ±SD	TSAT ∑ ±SD	FER ∑ ± SD	Sponsor	Patients
Bhandari, 2015	FDI	234	67.1	60.1±16.21	NR	11.2±0.66	21.6±5.95	367±180	Pharmacosmos A/S.	Chronic kidney disease and on haemodialysis patients
	ISC	117	63.2	59.5±15.39	NR	11±0.76	22.6±6.76	384±184		
Birgegard, 2016	FDI	231	34.6	55±12	NR	NR	NR	NR	NR	Nonmyeloid Malignancies
	OFS	119	24.4	54±11	NR	NR	NR	NR		
Boomershine, 2018	FCM	41	97.6	41.2±11.1	NR	12.3±1.2	14.6±5.3	19.0±12.4	Luitpold Pharmaceuticals, Inc	Fibromyalgia
	PCB	40	2.4	43.9±10.8	NR	12.3±1.2	13.6±5.5	18.1±11.6		
Charytan, 2013	FCM	50	56	54.8±14.4	93.1 ± 24.5	11.2 ± 0.7	22.6±4.9	273.2±112.3	Luitpold Pharmaceuticals, Inc	Chronic kidney disease:
	SCA	47	78.7	57.1±12.6	88.4 ± 21.1	11.3±0.7	24.6±4.8	247.9±135.6		
	FCM	204	32.8	64.4±11.7	91.8 ± 25.8	10.4±0.8	19.1±5.8	89.3±71.8		
	SCA	212	32.5	64.5±11.6	89.6 ± 24.5	10.2±0.9	18.5±6.3	91.8±87.0		
Derman, 2017	FDI	330	10	49±16	86±23	9.4±1.2	5.8±5.0	14.3±32.8	Not described	IDA caused by different etiologies
	ISC	161	9.3	47±15	82±21	9.4±1.3	6.4±5.9	15.6±47.2		
Dhoot, 2020	FCM	35	57.1	51±11.6	NR	11±1.4	NR	40.1 ±27.2	Not described	Heart failure patients
	SCA	35	60	54.8 ±9	NR	11.3 ±0.9	NR	45.5 ±35.1		
Emrich, 2020	FDI	13	0	40 ±10	NR	10.1±1.4	344±37	6 (IQR 4-8)	Pharmacosmos A/S	Anemia due to uterine bleeding
	FCM	13	0	34 ±11	NR	10.7±1.2	325±34	8 (IQR 6-12)		
Evstatiev, 2011	FCM	244	40.2	39.5 (IQR 18.0–81.0)	NR	10.1±1.5	9.0±9.1	14.8±24.6	Vifor Pharma	Inflammatory Bowel Disease
	ISC	239	42.3	38 (IQR 18.0–78.0)	NR	10.3±1.5	9.6±9.5	17.8±27.6		
Ferrer-Barcelo,2019	FCM	29	58.6	57.8±15.3	72.5±10.5	9.3±0.5	16±12.5	85.4±82.2	Walter Fürst (SFL Regulatory Affairs & Scientific Communications, Switzerland) and funded by Vifor Pharma España.	Anaemia after acute gastrointestinal bleeding
	OFS	32	68.7	62.5±18.3	76.9±16.4	9.2±0.7	14.9 ± 8.9	78.5±62.2		
Ford, 2016	FXM	173	21.4	47.4±16.85	NR	8.9±8.9	6.5±12.97	NR	AMAG Pharmaceuticals, Inc.	Gastrointestinal disorders
	PCB	58	24.1	52.1±15.93	NR	8.7±7.3	4.7±3.53	NR		
Gybel-Brask, 2018	FDI	43	0	23.2±3.75	63.2± 8.4	12.3±0.6	15.2±8.3	16.4±6.5	Pharmacosmos A/S (Holbaek, Denmark) .	iron-deficient blood donors
	PCB	42	0	24.9±6.01	64.2±9.2	12.4±0.8	14.1±7.2	14.0±6.1		
Hedenus, 2014	FCM	8	62.5	69.5 (IQR 41–79)	67.8 (IQR 59.0–103.7)	9.5 (IQR 9.0–10.5)	16 (IQR 3–35)	216 (IQR 65–800)	Vifor (International) AG	Lymphoid malignancies undergoing chemotherapy
	CTL	11	63.6	71.0 (IQR 26–88)	66.4 (IQR 49.0–78.0)	9.8 (IQR 8.4–10.)	18 (IQR 0–31)	322 (IQR 8–707)		
Hetzel, 2014	FXM	406	15.8	48.0±14.89	68.5±14.28	8.9	6.1±10.0	26.8±84.4	AMAG Pharmaceuticals	

Study	Treatment	n	% male	Age ∑ ± SD	Weight ∑ ±SD	Hb ∑ ±SD	TSAT ∑ ±SD	FER ∑ ± SD	Sponsor	Patients
	ISC	199	19.6	48.9±14.66	70.9±15.74	8.8	5.5±10.4	20.1±63.6		Anemia with a history of unsatisfactory oral iron therapy
Howaldt, 2022	OFM	125	46	40.0±14.6	NR	10.0±1.1	NR	16.6±71.6	NR	Inflammatory Bowel Disease
	FCM	125	38	40.4±15.5	NR	10.1±1.0	NR	9.3±12.2		
Howard, 2022	FCM	39	25.6	49 ± 14.5	NR	1.4±4.	NR	17.0 ± 21.8	British Heart Foundation (RG/10/16/28575) .	Pulmonary Arterial Hypertension
	PCB	38	25.6	49±14.5	NR	13.7±2.7	NR	17.0±21.8		
	IDX	17	11.8	30 ± 11.0	NR	NR	NR	11.0±7.0		
	PCB	17	11.8	30±11.0	NR	13.0±2.9	NR	11.0±7.0		
Ikuta, 2019	FCM	119	0	41.3±6.2	55.7±9.22	9.1±1.15	4.7 (95% CI 4.35. 5.10)	4.3 (95% CI 4.09. 4.53)	Zeria Pharmaceutical Co., Ltd.	Anemia due to hypermenorrhea
	SFO	119	0	41.4±6.1	55.2±8.49	9.2±1.08	4.6 (95% CI 4.22. 4.92)	4.4 (95% CI 4.12. 4.71)		
Jin, 2024	FCM	187	7.5	39.9±9.9	59.8±9.4	7.74±1.49	4.82±1.90	4.47±2.15	Vifor Pharma, Glattbrugg, Switzerland	iron deficiency anemia
	ISC	180	6.1	38.9±8.7	60.4±9.4	8.06±1.45	4.92±2.91	4.93±6.10		
Kalra, 2016	FDI	233	39.5	57.63±15.54	NR	9.73±1.09	19.20±36.79	80.18±114.33	NR	Non-dialysis dependent chronic kidney disease
	OFS	118	54.2	57.94±16.34	NR	9.60±1.17	16.97±11.67	110.35±109.58		
Kalra, 2022	FDI	569	75	73·2 (IQR 66·7–80·1)	NR	12·1 (IQR 11·2–12·8)	15% (IQR 11–20)	49·0 (IQR 30·0–86·0)	British Heart Foundation Pharmacosmos	Heart failure
	SCA	568	72	73·5 (IQR 67·1–79·1)	NR	12·1 (IQR 11·2–12·9)	15% (IQR 10–19)	50·0 (IQR 30·0–85·0)		
Kulnigg, 2008	FCM	136	40.4	40.0 (IQR 19–78)	NR	8.7 (IQR 5.0–11.5)	4.0 (IQR 1–32)	5.0 (IQR 1–399)	Vifor (International) , Inc.	Inflammatory Bowel Disease
	OFS	60	40	45.0 (IQR 20–78)	NR	9.1 (IQR 5.3–11.1)	6.0 (IQR 1–64)	6.5 (IQR 1–383)		
Li, 2008	ISC	70	44.3	53.6±13.8	NR	8.1±8.3	22.3±12.4	192.6±154.4	NR	Renal anemia
	FSC	66	39.4	54.9±12.6	NR	8.2±7.8	21.3±16.8	194.7±158.4		
Lindgreen, 2009	ISC	45	40.6	42.1±15.0	NR	10.5 ±9.0	7.1±5.3	14.0±17.6	Renapharma AB, Uppsala, Sweden.	inflammatory bowel disease
	OFS	46	32.6	42.8±16.5	NR	10.4 ±11.4	6.5±4.8	12.4±14.5		
Macdougall, 2014a	FCM High Ferritin	153	40.5	69.5±12.6	NR	10.3±0.7	16.2±16.7	57.7±48.1	Vifor Pharma	Chronic kidney disease
	FCM Low Ferritin	152	35.5	68.2±13.3	NR	10.5±0.8	16.1±8.3	56.4±49.2		
	OFS	308	37.7	69.3±13.4	NR	10.4±0.7	15.5±7.6	57.3±42.4		
Macdougall, 2014b	FXM	80	49	62±15	NR	NR	NR	NR		

Study	Treatment	n	% male	Age ∑ ± SD	Weight ∑ ±SD	Hb ∑ ±SD	TSAT ∑ ±SD	FER ∑ ± SD	Sponsor	Patients
	ISC	82	52	63±15	NR	NR	NR	NR	AMAG Pharmaceuticals, Inc.	Chronic KidneyDisease
Macdougall, 2019	FXM	196	58.2	59.3±14.1	86.8±23.4	10.4	NR	NR	AMAG Pharmaceuticals	Chronic kidney disease undergoing hemodialysis
	ISC	97	58.8	57.6±13.6	83.2±21.0	10.3	NR	NR		
Mahey, 2016	FCM	30	0	36.3 ±9.0	56.4±12.0	7.4±12.3	NR	10.0 (IQR 3.9–28.0)	NR	IDA due to abnormal uterine bleeding
	ISC	30	0	35.2 ±7.5	55.6±9.3	7.7±12.0	NR	8.8 (IQR 2.3–20.0)		
Noronha, 2017	ISC	94	46.8	55.0 (IQR 29-73)	NR	10.2 (IQR 7.2-11.9)	NR	NR	Tata Memorial Center Research Administration Council	Cancer
	OFS	98	34.7	50.0 (IQR 18-73)	NR	10.1 (IQR 7.2-12.5)	NR	NR		
Onken, 2013	FCM	246	5.3	43.1±17.2	82.8±22.5	10.59±1.0	22.1±14.8	31.3±67.7	Luitpold Pharmaceuticals	IDA caused by different etiologies
	OFS	253	5.9	43.5±17.7	84.2±24.8	10.62±1.1	22.4±15.1	28.2±39.2		
	FCM	253	5.5	43.6±16.9	79.5±20.4	9.12 ±1.6	11.5±12.2	25.9±63.8		
	IVSC	245	5.7	42.6±15.5	84.7±25.9	9.02±1.5	10.3±9.7	14.9±29.3		
Onken, 2014	FCM	1276	36.5	67.5±13.0	NR	10.31±0.833	19.79±7.777	73.01±64.624	Luitpold Pharmaceuticals.	Impaired renal function
	ISC	1285	36.3	67.2±13.0	NR	10.32 ±0.826	19.56±7.397	75.05±64.116		
Patel, 2024	FCM	33	0	56 (95% CI 53-59)	NR	9.3 (95% CI 9.14–9.63)	16.5 (95% CI 11.49-21.52)	243 (95% CI 188–299)	Amrita Research fund	Cancer
	FAS	36	0	54 (95% CI 51-58)	NR	9.3 (95% CI 9–9.61)	15 (95% CI 12-17.48)	215 (95% CI 166-263)		
Pieracci, 2014	ISC	75	77.3	41.6 (95% CI 18–83)	NR	8.9	9	282.8	National Trauma Institute and by Prime Award	Traumatic Critical Illness
	PCB	75	61.3	40.4 (95% CI 18–87)	NR	9.9	8	316.2		
Provenzano, 2009	FXM	114	50	59.5±14.3	NR	10.59±0.67	15.71±7.21	341±159 ng/mL	AMAG Pharmaceuticals	Hemodialysis
	FFM	116	62.9	60.8±13.0	NR	10.69±0.57	15.91±6.29	358±172ng/mL		
Qunibi, 2010	FCM	147	36.1	65.4 ± 12.6	84.6 ± 23.0	10.1 ± 0.74	15.4±5.5	111.8±85.1	American Regent	Chronic Kidney Disease
	OFS	103	29.1	66.8 ± 13.5	89.5 ± 27.2	10.0 ± 0.86	15.8±5.6	104.8±75.1		
Reinisch, 2013	FDI	219	37	Med 36	NR	9.64±1.65	8.2±9.7	32.8±90.8	Pharmacosmos A / S.	Inflammatory bowel diseases
	OFS	108	38	Med 35	NR	9.61±1.82	6.2±4.4	18.3±36.0		
Roger, 2017	FCM - High	154	40.3	69.5±12.6	NR	10.3±0.7	16.2±16.6	58±48	Vifor Pharma,Glattbrugg, Switzerland.	Chronic Kidney Disease

Study	Treatment	n	% male	Age ∑ ± SD	Weight ∑ ±SD	Hb ∑ ±SD	TSAT ∑ ±SD	FER ∑ ± SD	Sponsor	Patients
	FCM- Low	150	36	68.1±13.3	NR	10.5±0.8	16.1±8.3	55±48		
	OFS	312	37.2	69.3±13.4	NR	10.4±0.7	15.5±7.6	57±42		
Saroj Vadhan, 2014	FXM	608	10.9	44.8 ± 13.82	78.8± 24.42	8.9 ± 0.89	7.0±12.9	22.6±80.7	AMAG Pharmaceuticals, Inc.	Iron deficiency anemia
	PCB	200	11	46.0± 13.58	79.0 ± 23.81	8.8 ± 0.89	5.4±4.9	20.7±59.8		
Schroder, 2005	ISC	22	22.7	35 (IQR 29-41)	60 (IQR 54-65)	0.98 (IQR 0.88–1.04)	6.5 (IQR 4.2–7.8)	33.8 (IQR 26.9–49.1)	Vifor Int., St. Gallen, Switzerland.	Inflammatory Bowel Disease
	OFS	24	22.7	33 (IQR 25-47)	61 (IQR 55-70)	0.96 (IQR 0.93–1.01)	5.5 (IQR 4.0–8.0)	36.6 (IQR 28.4–42.5)		
Tabish, 2024	FCM	48	89.6	45.96±12.07	61.92±10.11	8.32±1.15	0.07 (IQR 0.06–0.10)	30.00 (IQR 16.00–60.00)	None	Cirrhosis
	CAI	44	84.1	46.11±12.25	61.52±10.65	8.21±1.05	0.09 (IQR 0.07–0.14)	40.00 (IQR 18.60–70.00)		
Van Wyck, 2006	ISC	79	32.9	62.3	85.6	10.2	16.4	92.6	American Regent, Inc.	Chronic Kidney Disease
	OFS	82	31.7	63.9	83.4	10.1	16.7	103.8		
Waziri, 2016	IDX	33	44.1	53.2±12.3	75.5±12.9	9.3±1.2	25.1±6.8	121.6±72.0	Study was provided by the investigators	Chronic kidney disease
	ISC	34	51.5	51±13.0	71.2±17.6	9.1±1.1	23.8±7.8	100.7±83.5		
Wolf, 2018	FXM	997	25.5	55.6±17.3	84.3±24.9	10.4±1.5	9 (95% CI 5.0–16.0)	32.3 (95% CI 13.4–121.7)	AMAG Pharmaceuticals, Inc.	Previously did not tolerate or insufficiently responded to oral iron
	FCM	1000	22.4	54.8±17.0	85.8±26.0	10.4±1.5	9 (95% CI 5.0–17.0)	33.9 (95% CI 12.3–123.2)		
Wolf, 2021a	FDI	63	3.2	43.9±10.4	80.6±16.6	9.8±1.3	5.6 (IQR 3.5-9.7)	6.1 (IQR 2.9-12.9)	Pharmacosmos A/S	Anemia caused by different etiologies
	FCM	60	5	46.3±11.6	77.4±20.2	9.6±1.3	4.7 (IQR 3.6-7.7)	4.8 (IQR 3.1-7.5)		
Wolf, 2021b	FDI	62	6.5	42.2±12.9	90.1±29.2	9.6±1.2	5.2 (IQR 3.5-8.8)	4.8 (IQR 2.8-8.7)	Pharmacosmos A/S	Anemia caused by different etiologies
	FCM	57	5.3	43.1±11.5	84.2±20.1	9.3±1.4	4.8 (IQR 3.2-9.2)	5.1 (IQR 2.7-8.8)		
Zahr, 2024	ISC	13	46.2	55.79±18.53	69.64±11.1	10.03±0.66	11.33±3.05	60.71±35.89	None	Chronic Kidney Disease
	OLS	14	28.6	59.29±14.34	73.29±12.99	9.82±1.21	12.89±9.3	64.45±37.41		
Zoller, 2023	FDI	48	45.8	42.3±14.1	79.8±15.4	10.5± 15	9.3±8.4	9.5±9.6	Pharmacosmos A/S	Inflammatory bowel disease
	FCM	49	49	41.9±14.7	80.6±16.6	10.4±14	7.1±4.4	14.6±28.7		

Legend: NR: - No reported, CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, IQR -interquartile range, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

Supplement 8 – Risk of bias Appraisal

S8.1 - Outcome Hemoglobin

Unique ID	D1	D2	D3	D4	D5	Overall
Adkinson, 2018	+	+	+	+	+	+
Agarwal, 2006	+	+	!	+	+	!
Agarwal, 2015	+	+	+	+	+	+
Ambrosy, 2021	!	+	+	+	+	!
Anirban, 2008	+	+	+	+	!	!
Anker, 2009	+	+	+	+	+	+
Auerbach, 2019	!	+	+	+	+	!
Bae, 2023	+	+	+	+	+	+
Barish,2012	+	+	+	+	!	!
Bertani, 2021	+	+	+	+	+	+
Bhandari, 2015	+	+	+	+	+	+
Birgegard, 2016	+	+	+	+	+	+
Boomershine, 2018	+	+	+	+	!	!
Derman, 2017	!	+	+	+	!	!
Dhoot, 2020	!	+	+	+	!	!
Ferrer-Barcelo, 2019	-	+	+	+	+	-
Ford, 2016	!	+	+	+	+	!
Gybel-Brask, 2018	+	+	+	+	+	+
Howaldt, 2022	!	+	+	+	+	!
Howard, 2022	+	+	+	+	+	+
Ikuta, 2019	+	+	+	+	+	+
JIn, 2024	+	+	+	+	+	+
Kalra, 2016	+	+	+	+	+	+
Kulnigg, 2008	+	+	+	+	+	+
Li, 2008	!	+	+	+	!	!
Macdougall, 2014a	+	+	+	+	+	+
Macdougall, 2014b	!	+	+	+	!	!
Macdougall, 2019	!	+	+	+	+	!
Mahey, 2016	+	+	+	+	!	!
Noronha, 2017	!	+	+	+	+	!
Onken, 2013	!	+	-	+	!	-
Onken, 2014	+	+	+	+	!	!
Patel, 2024	+	+	+	+	+	+
Pieracci, 2014	+	!	-	+	!	-
Provenzano, 2019	+	+	+	+	+	+
Quinibi, 2010	!	+	+	+	!	!
Reinisch, 2013	+	+	+	+	+	+
Saroj Vadhan, 2014	+	+	+	+	+	+
Schroder, 2005	+	+	+	+	+	+
Tabish, 2024	+	+	+	+	+	+
Van Wych, 2005	+	+	+	+	+	+
Waziri, 2016	-	+	+	+	!	-
Wolf, 2020a	+	+	+	+	+	+
Wolf, 2020b	+	+	+	+	+	+
Zahr, 2024	+	+	+	+	+	+
Zoller, 2023	+	+	+	+	+	+

+ Low risk

! Some concerns

- High risk

D1 Randomisation process

D2 Deviations from the intended interventions

D3 Missing outcome data

D4 Measurement of the outcome

D5 Selection of the reported result

S8.2 - Outcome Transferrin Saturation

Unique ID	D1	D2	D3	D4	D5	Overall
Adkinson, 2018	+	+	+	+	+	+
Agarwal, 2006	+	+	!	+	+	!
Agarwal, 2015	+	+	+	+	+	+
Ambrosy, 2021	!	+	+	+	+	!
Anker, 2009	+	+	+	+	+	+
Auerbach, 2019	!	+	+	+	+	!
Bae, 2023	+	+	+	+	+	+
Bhandari, 2015	+	+	+	+	+	+
Birgegard, 2016	+	+	+	+	+	+
Boomershine, 2018	+	+	+	+	!	!
Charytan, 2013	+	+	+	+	+	+
Derman, 2017	!	+	+	+	!	!
Ferrer-Barcelo, 2019	-	+	+	+	+	-
Ford, 2016	!	+	+	+	+	!
Gybel-Brask, 2018	+	+	+	+	+	+
Hedenus, 2014	+	+	+	+	+	+
Hetzel, 2014	!	+	+	+	!	!
Howard, 2022	+	+	+	+	+	+
Ikuta, 2019	+	+	+	+	+	+
JIn, 2024	+	+	+	+	+	+
Kalra, 2016	+	+	+	+	+	+
Li, 2008	!	+	+	+	!	!
Macdougall, 2014a	+	+	+	+	+	+
Macdougall, 2014b	!	+	+	+	!	!
Onken, 2013	!	+	-	+	!	-
Pieracci, 2014	+	!	-	+	!	-
Provenzano, 2019	+	+	+	+	+	+
Quinibi, 2010	!	+	+	+	!	!
Reinisch, 2013	+	+	+	+	+	+
Saroj Vadhan, 2014	+	+	+	+	+	+
Schroder, 2005	+	+	+	+	+	+
Van Wych, 2005	+	+	+	+	+	+
Waziri, 2016	-	+	+	+	!	-
Wolf, 2020a	+	+	+	+	+	+
Wolf, 2020b	+	+	+	+	+	+
Zahr, 2024	+	+	+	+	+	+
Zoller, 2023	+	+	+	+	+	+

+ Low risk

! Some concerns

- High risk

D1 Randomisation process

D2 Deviations from the intended interventions

D3 Missing outcome data

D4 Measurement of the outcome

D5 Selection of the reported result

S8.3 - Outcome Ferritin

Unique ID	D1	D2	D3	D4	D5	Overall
Adkinson, 2018	+	+	+	+	+	+
Agarwal, 2006	+	+	!	+	+	!
Ambrosy, 2021	!	+	+	+	+	!
Anker, 2009	+	+	+	+	+	+
Auerbach, 2019	!	+	+	+	+	!
Bae, 2023	+	+	+	+	+	+
Beck da Silva, 2014	+	+	-	+	-	-
Bertani, 2021	+	+	+	+	+	+
Bhandari, 2015	+	+	+	+	+	+
Birgegard, 2016	+	+	+	+	+	+
Boomershine, 2018	+	+	+	+	!	!
Charytan, 2013	+	+	+	+	+	+
Derman, 2017	!	+	+	+	!	!
Dhoot, 2020	!	+	+	+	!	!
Gybel-Brask, 2018	+	+	+	+	+	+
Hedenus, 2014	+	+	+	+	+	+
Howaldt, 2022	!	+	+	+	+	!
Howard, 2022	+	+	+	+	+	+
Ikuta, 2019	+	+	+	+	+	+
JIn, 2024	+	+	+	+	+	+
Kalra, 2016	+	+	+	+	+	+
Kulnigg, 2008	+	+	+	+	+	+
Li, 2008	!	+	+	+	!	!
Macdougall, 2014a	+	+	+	+	+	+
Macdougall, 2014b	!	+	+	+	!	!
Mahey, 2016	+	+	+	+	!	!
Onken, 2013	!	+	-	+	!	-
Pieracci, 2014	+	!	-	+	!	-
Provenzano, 2019	+	+	+	+	+	+
Quinibi, 2010	!	+	+	+	!	!
Reinisch, 2013	+	+	+	+	+	+
Schroder, 2005	+	+	+	+	+	+
Van Wych, 2005	+	+	+	+	+	+
Waziri, 2016	-	+	+	+	!	-
Wolf, 2020a	+	+	+	+	+	+
Wolf, 2020b	+	+	+	+	+	+
Zahr, 2024	+	+	+	+	+	+
Zoller, 2023	+	+	+	+	+	+

+ Low risk

! Some concerns

- High risk

D1 Randomisation process

D2 Deviations from the intended interventions

D3 Missing outcome data

D4 Measurement of the outcome

D5 Selection of the reported result

S8.4 - Outcome Any Adverse Event

Unique ID	D1	D2	D3	D4	D5	Overall
Adkinson, 2018	+	+	+	+	+	+
Bailie, 2010	+	+	+	+	+	+
Bhandari, 2015	+	+	+	+	+	+
Birgegard, 2016	+	+	-	-	+	-
Boomershine, 2018	+	+	+	+	+	+
Charytan, 2013	+	+	+	-	+	-
Derman, 2017	+	+	+	-	+	-
Ford, 2016	+	+	+	+	+	+
Hedenus, 2014	+	+	+	-	+	-
Hetzel, 2014	+	+	+	-	+	-
Howaldt, 2022	!	+	-	-	+	-
Ikuta, 2019	+	+	+	+	+	+
Jin, 2024	+	+	+	-	+	-
Kalra, 2016	+	+	+	+	+	+
Macdougall, 2014a	+	+	+	-	+	-
Macdougall, 2019	+	+	+	-	+	-
Mahey, 2016	!	+	+	-	+	-
Provenzano, 2009	!	+	+	-	+	-
Qunibi, 2010	+	+	+	-	+	-
Reinisch, 2013	+	+	-	-	+	-
Roger, 2017	+	+	+	-	+	-
Saroj Vadhan, 2014	+	+	+	+	+	+
Schroder, 2005	+	+	-	-	+	-
Waziri, 2016	-	+	+	+	+	-
Zoller, 2023	+	+	+	+	+	+

+ Low risk

! Some concerns

- High risk

D1 Randomisation process

D2 Deviations from the intended interventions

D3 Missing outcome data

D4 Measurement of the outcome

D5 Selection of the reported result

S8.5 - Outcome Serious Adverse Event

Unique ID	D1	D2	D3	D4	D5	Overall
Adkinson, 2018	+	+	+	+	+	+
Agarwal, 2006	+	+	+	-	+	-
Anirban, 2008	+	+	+	-	+	-
Auerbach, 2019	+	+	+	+	+	+
Bhandari, 2015	+	+	+	+	+	+
Birgegard, 2016	+	+	-	-	+	-
Charytan, 2013	+	+	+	-	+	-
Derman, 2011	+	+	+	-	+	-
Dhoot, 2020	+	+	+	-	+	-
Evstatiev, 2011	+	+	+	+	+	+
Ford, 2016	+	+	+	+	+	+
Hedenus, 2014	+	+	+	-	+	-
Hetzel, 2014	+	+	+	-	+	-
Howaldt, 2022	!	+	-	-	+	-
Jin, 2024	+	+	+	-	+	-
Kalra, 2016	+	+	+	+	+	+
Kalra, 2022	+	+	+	+	+	+
Kulnigg, 2008	+	+	+	-	+	-
Macdougall, 2014a	+	+	+	-	+	-
Macdougall, 2014b	!	+	+	-	+	-
Macdougall, 2019	+	+	+	-	+	-
Onken, 2013	+	+	+	+	+	+
Provenzano, 2022	!	+	+	-	+	-
Qunibi, 2010	+	+	+	-	+	-
Reinisch, 2013	+	+	-	-	+	-
Roger, 2017	+	+	+	-	+	-
Saroj Vadhan, 2014	+	+	+	+	+	+
Zoller, 2023	+	+	+	+	+	+

+ Low risk

! Some concerns

- High risk

D1 Randomisation process

D2 Deviations from the intended interventions

D3 Missing outcome data

D4 Measurement of the outcome

D5 Selection of the reported result

S8.6 - Outcome Hypophosphatemia

Unique ID	D1	D2	D3	D4	D5	Overall
Adkinson, 2018	+	+	+	+	+	+
Ambrosy, 2021	+	+	+	+	+	+
Auerbach, 2019	+	+	+	+	+	+
Bailie, 2010	+	+	+	+	+	+
Bhandari, 2015	+	+	+	+	+	+
Emrich,2020	+	+	+	+	+	+
Evstatiev, 2011	+	+	+	+	+	+
Jin, 2024	+	+	+	+	+	+
Kalra, 2016	+	+	+	+	+	+
Mahey, 2016	+	+	+	+	+	+
Onken, 2013	+	+	+	+	+	+
Onken, 2014	+	+	+	+	+	+
Tabish, 2024	+	+	+	+	+	+
Wolf, 2018	+	+	+	+	+	+
Wolf, 2020a	+	+	+	+	+	+
Wolf, 2020b	+	+	+	+	+	+
Zoller, 2023	+	+	+	+	+	+

+ Low risk

! Some concerns

- High risk

D1 Randomisation process

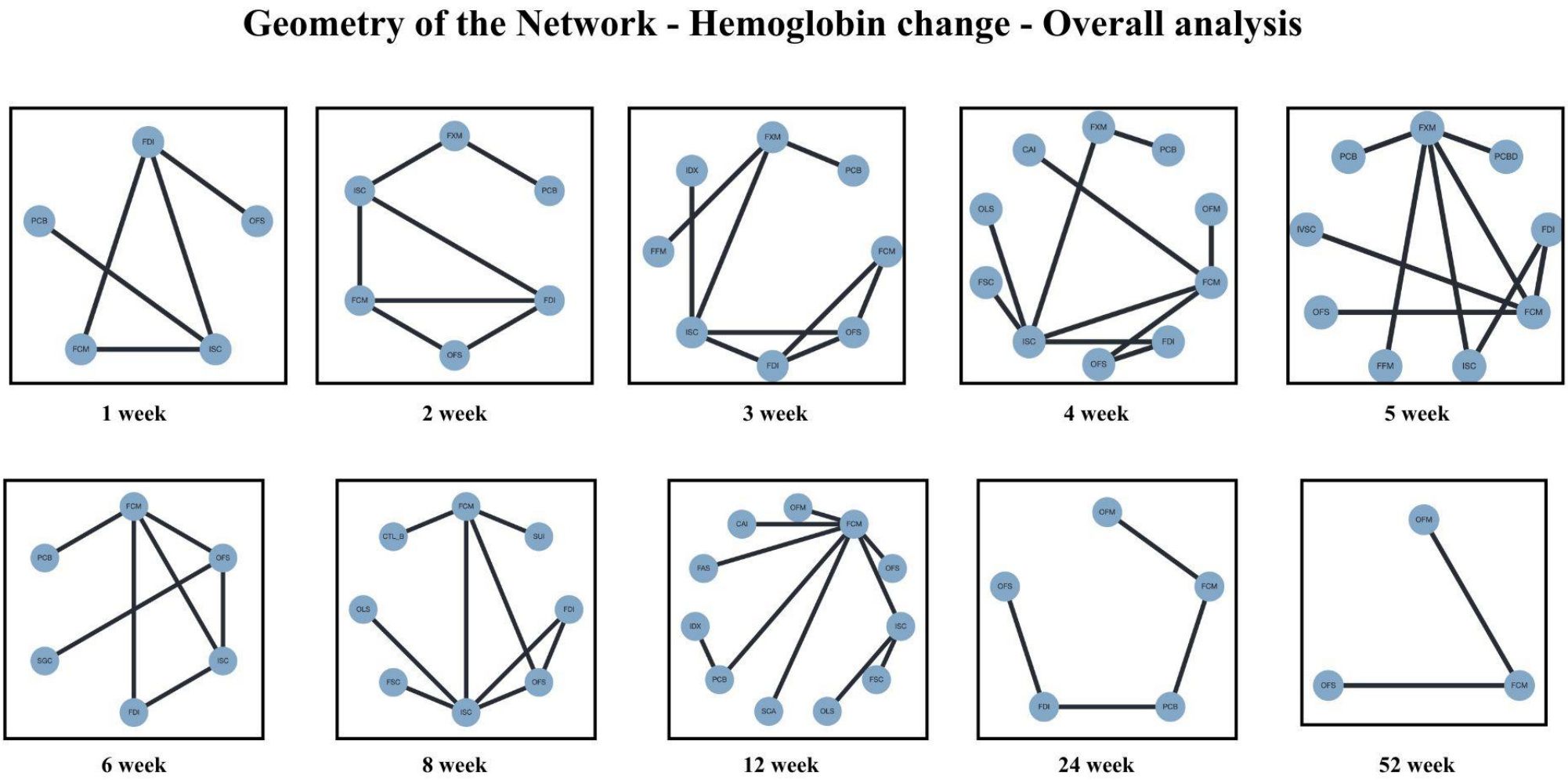
D2 Deviations from the intended interventions

D3 Missing outcome data

D4 Measurement of the outcome

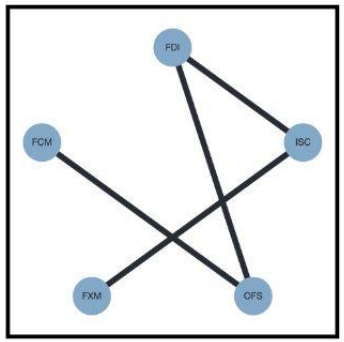
D5 Selection of the reported result

Supplement 9 – Geometry of Network
S9.1 – Hemoglobin change – Overall analysis

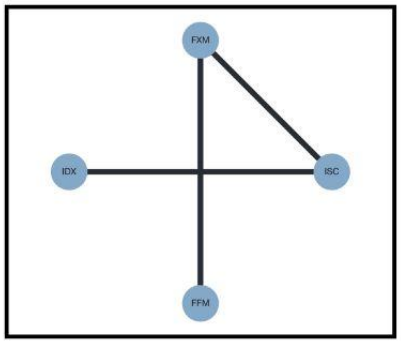


S9.2 – Hemoglobin change – Renal analysis

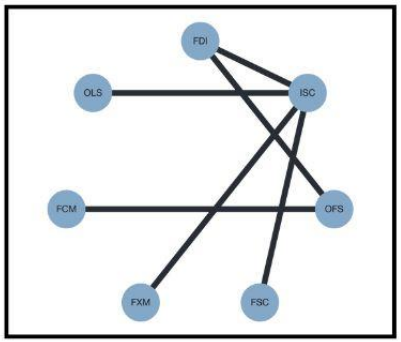
Geometry of the Network - Hemoglobin change - Renal Analysis



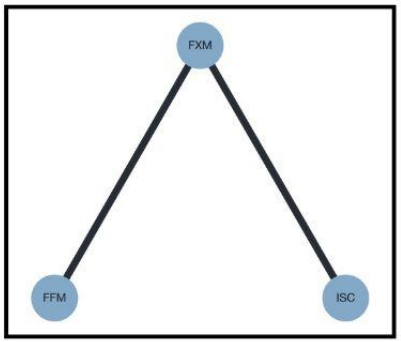
2 week



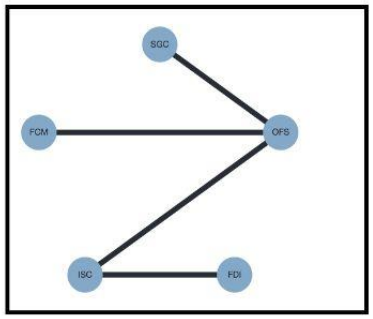
3 week



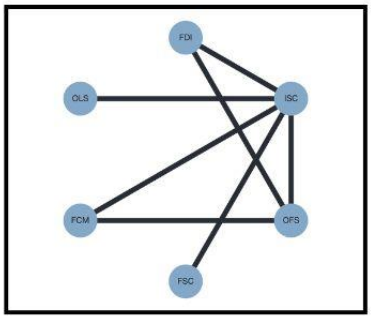
4 week



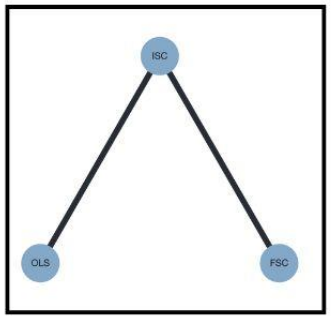
5 week



6 week

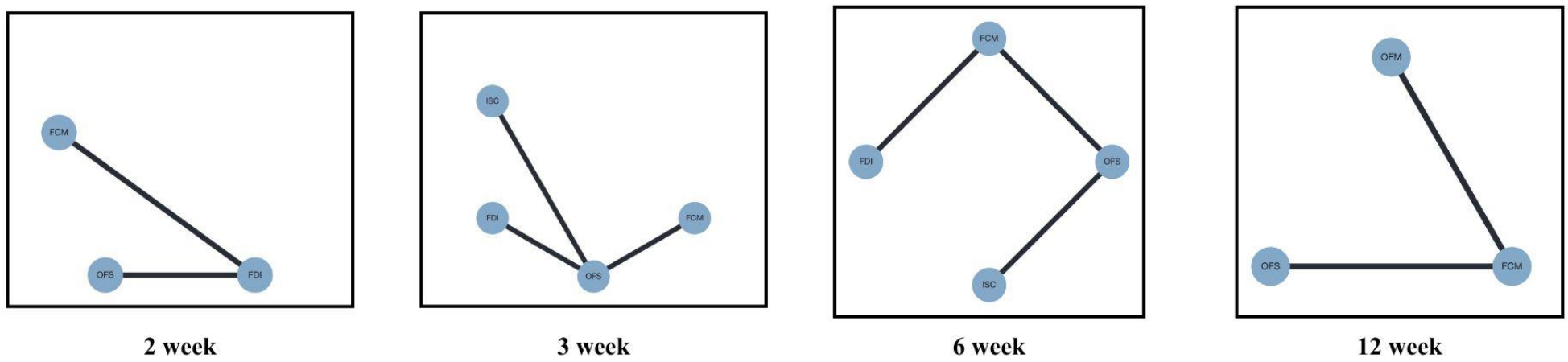


8 week

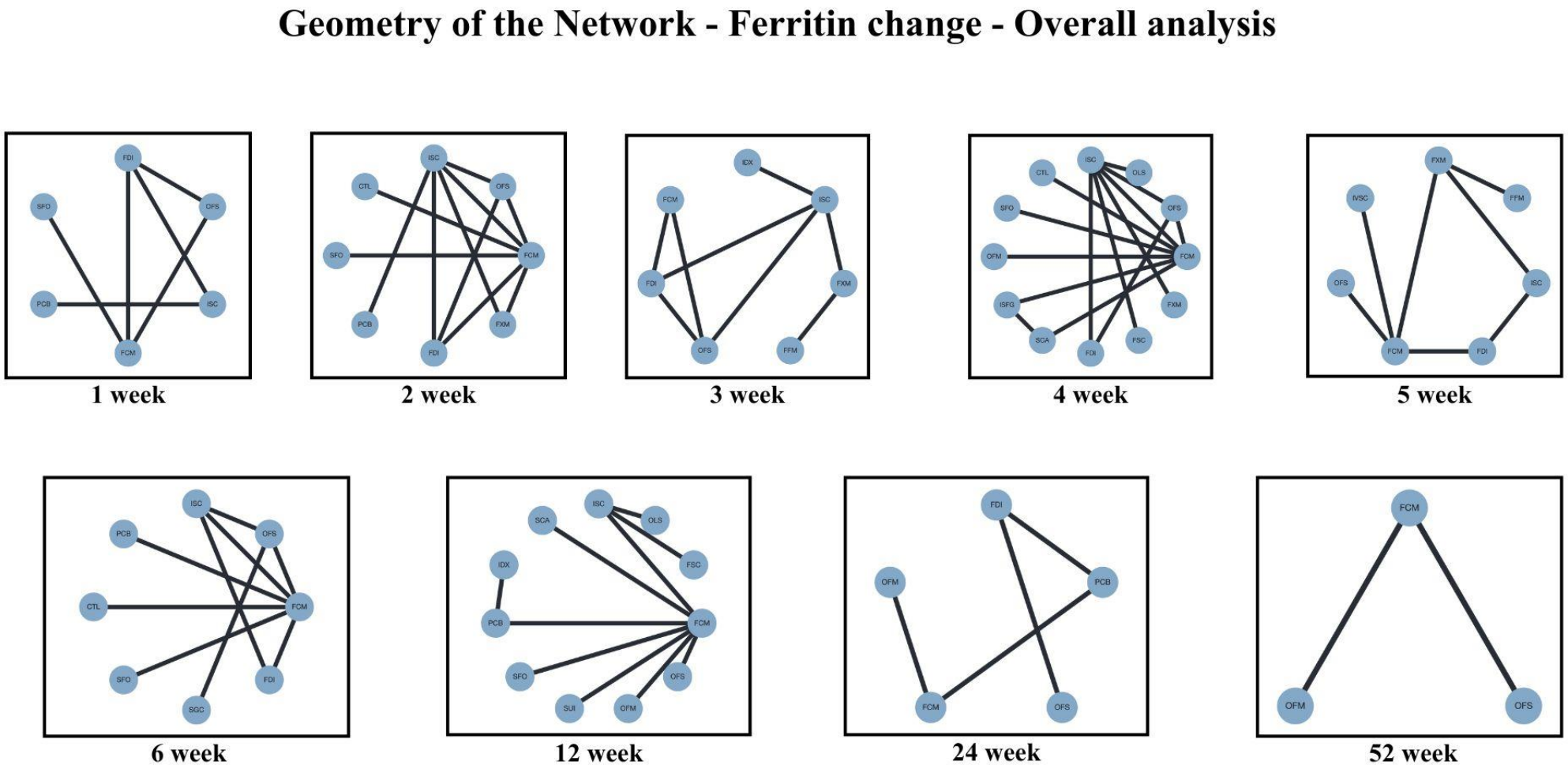


12 week

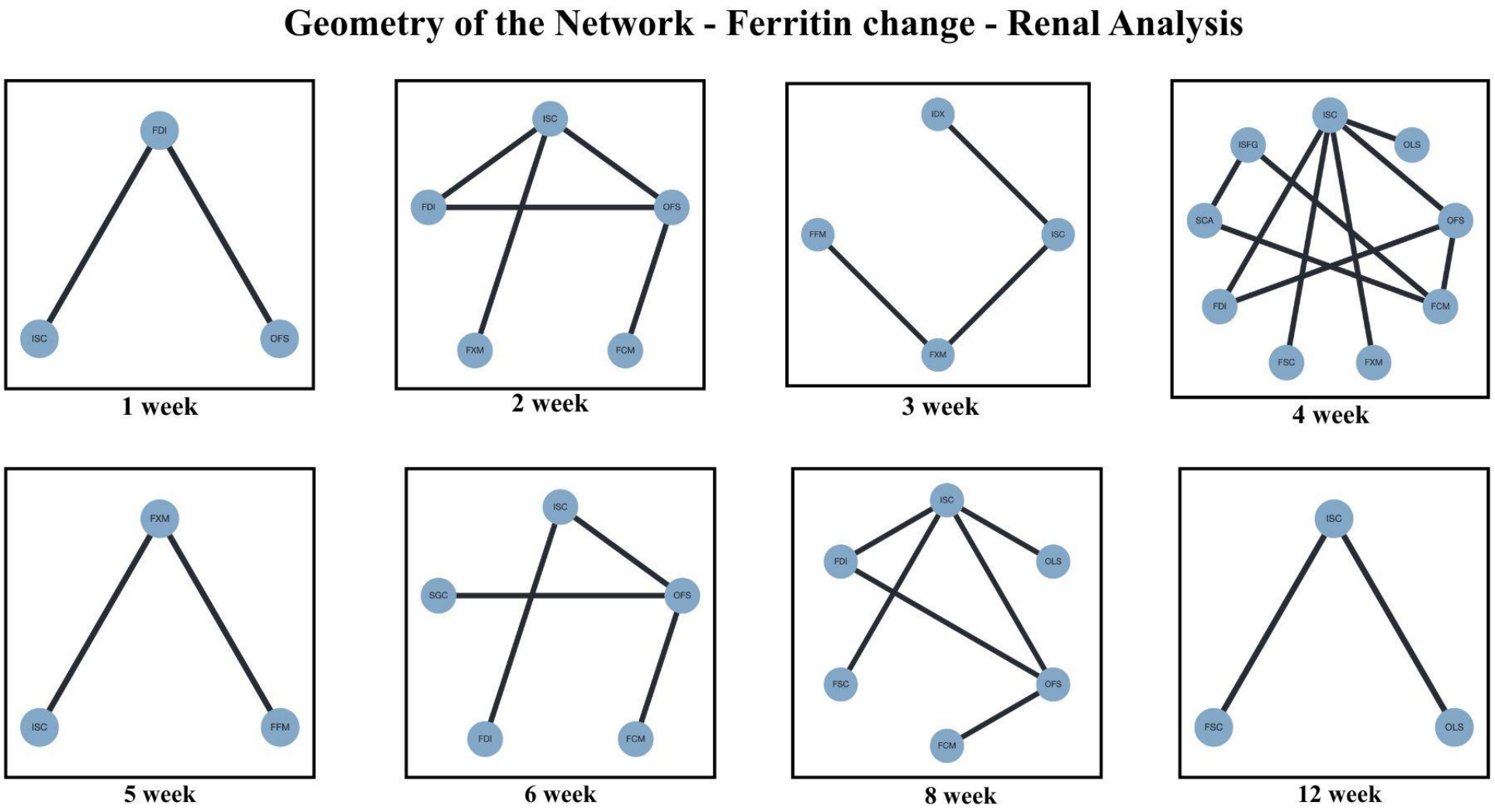
S9.3 – Hemoglobin change – GI analysis



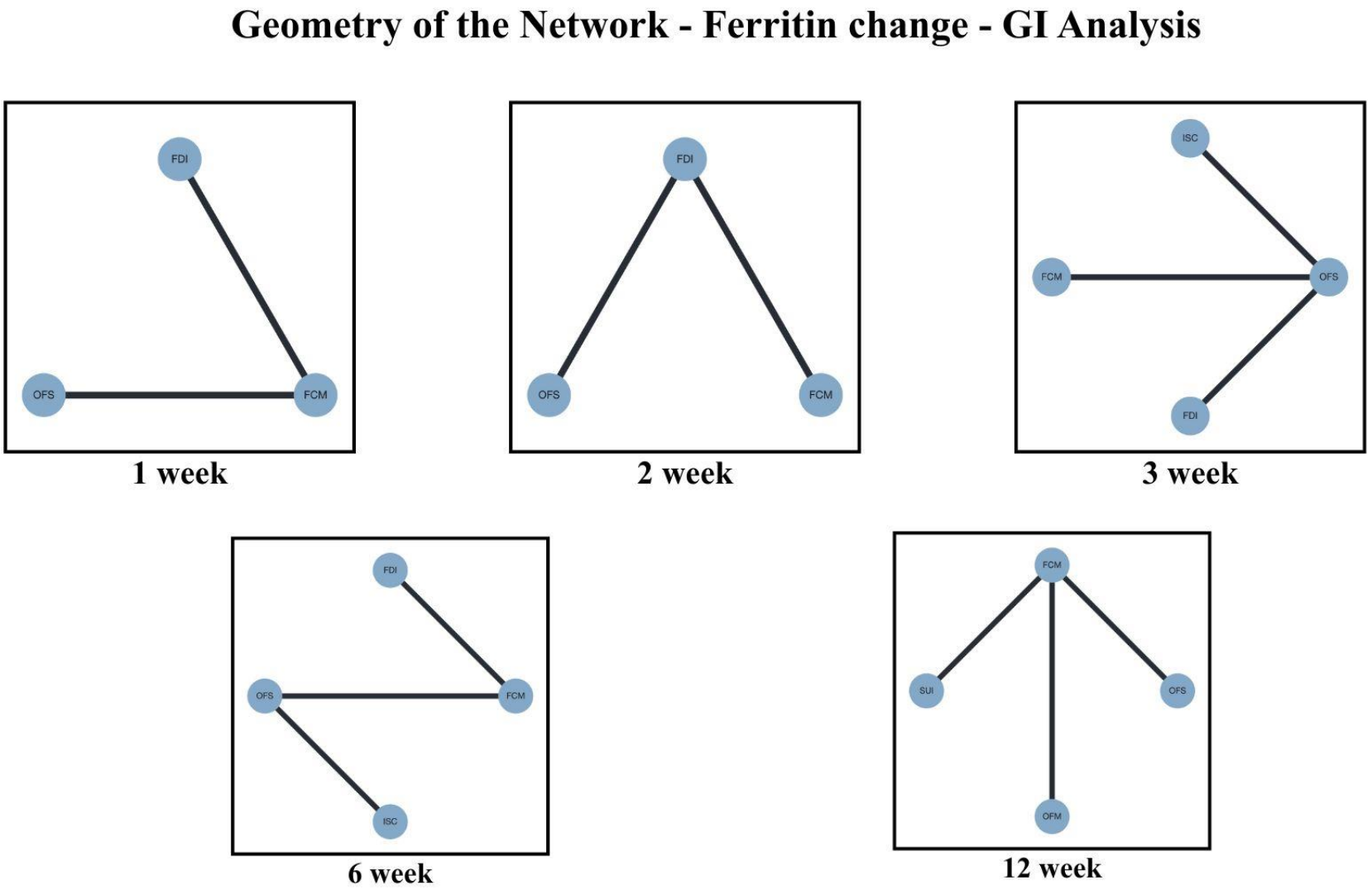
S9.4 – Ferritin change – Overall analysis



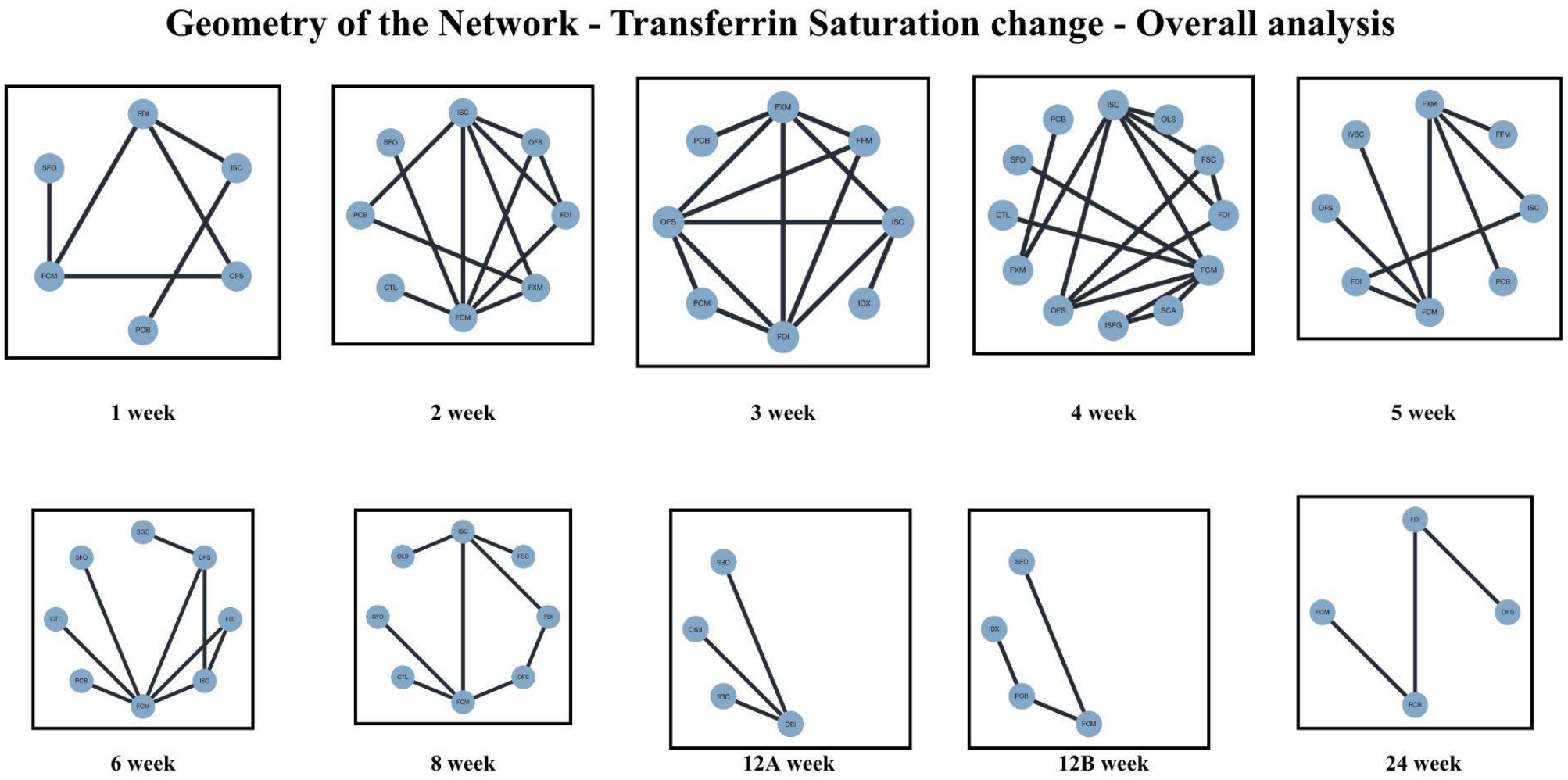
S9.5 – Ferritin change – Renal analysis



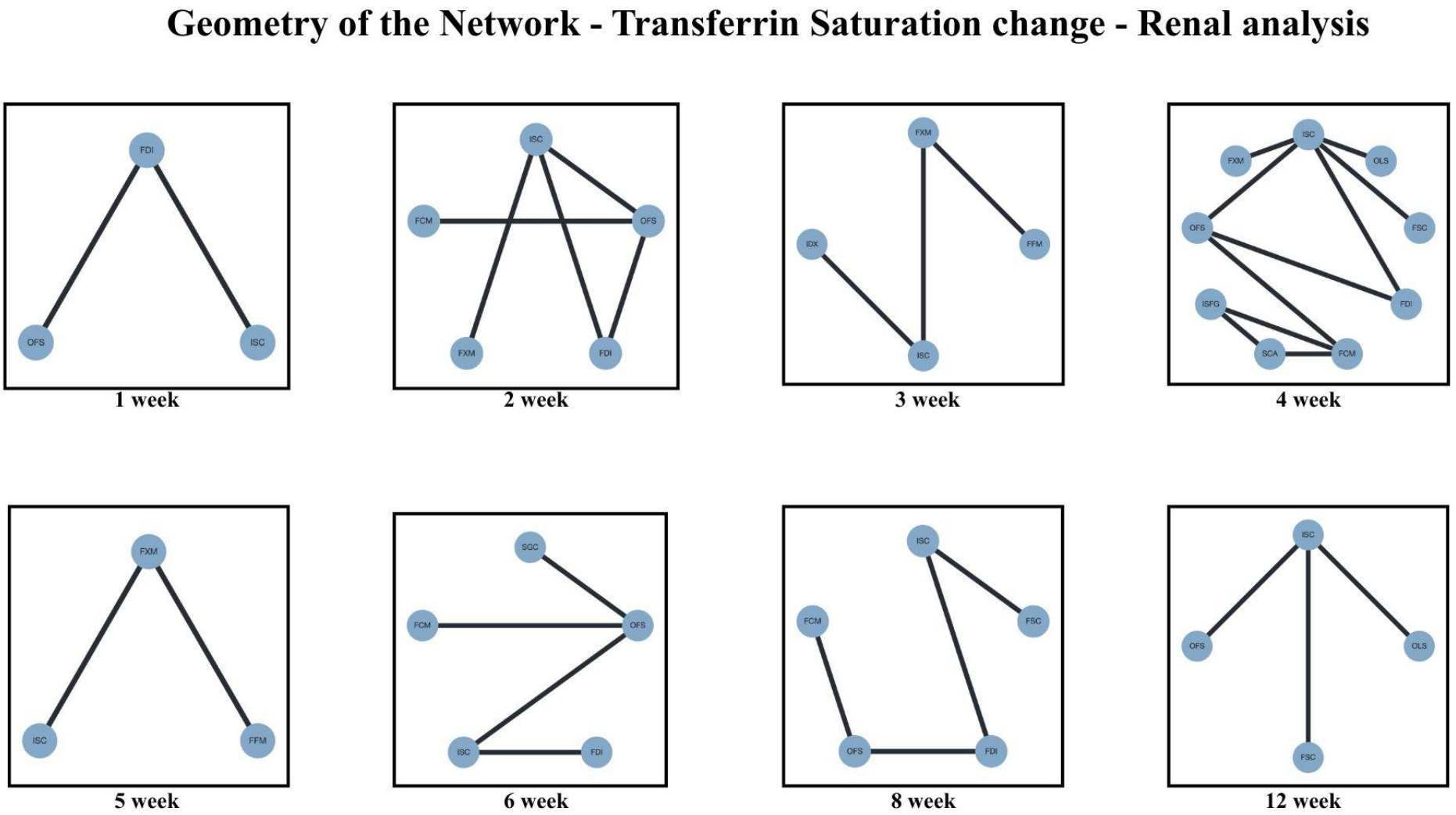
S9.6 – Ferritin change – GI analysis



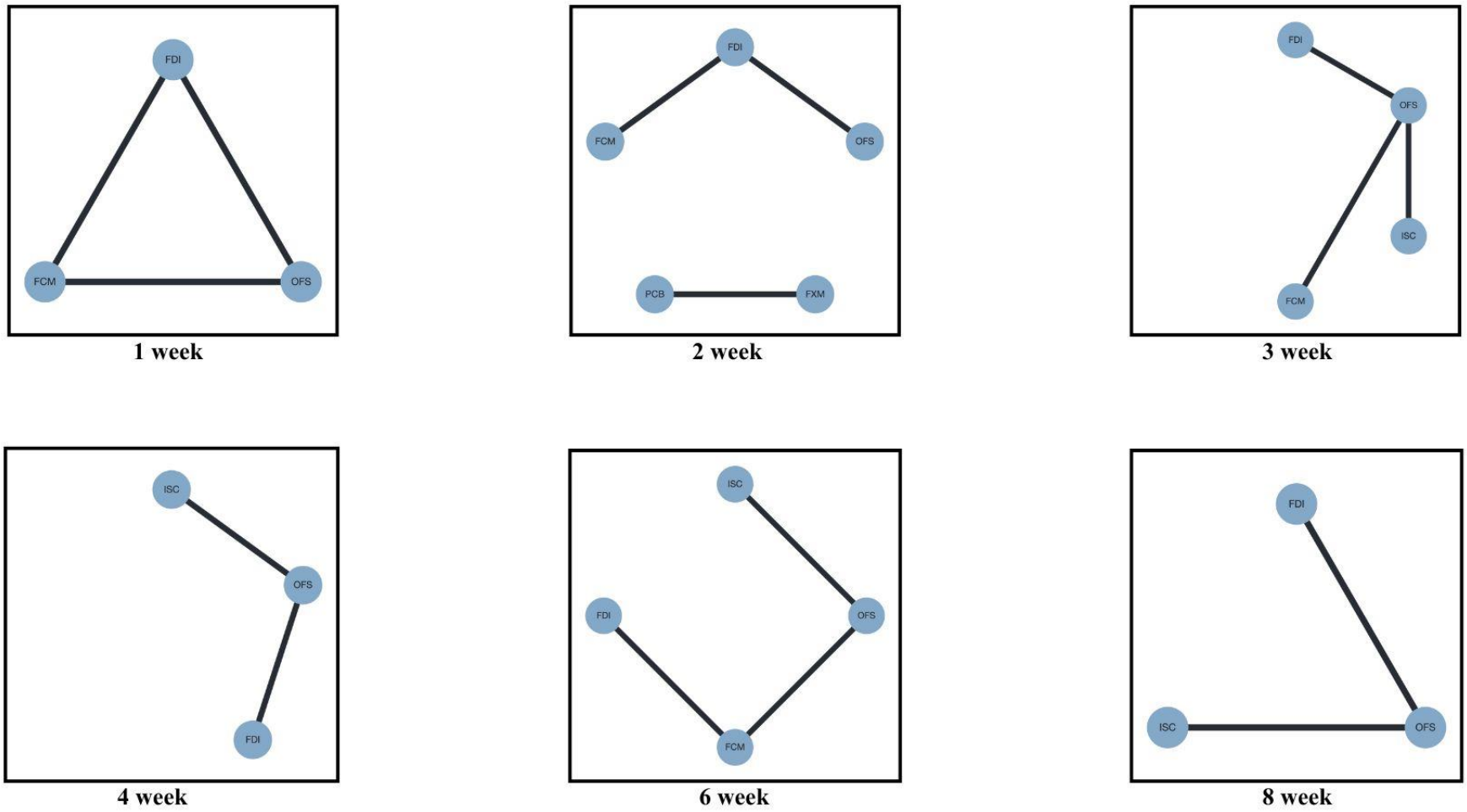
S9.7 – Transferrin Saturation change – Overall analysis



S9.8 – Transferrin Saturation change – Renal analysis

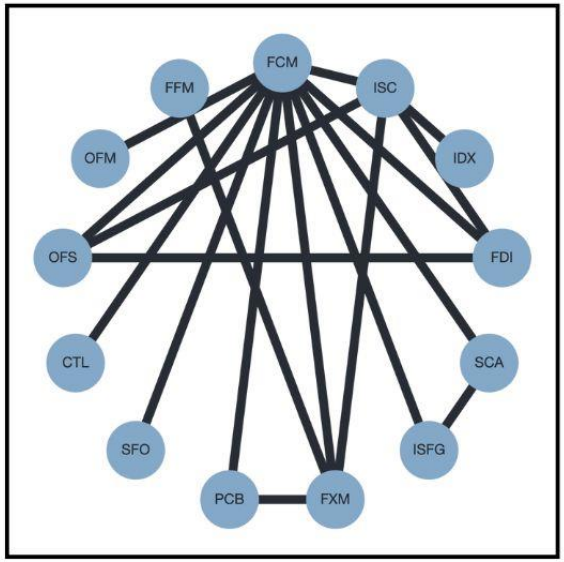


S9.9 – Transferrin Saturation change – GI analysis

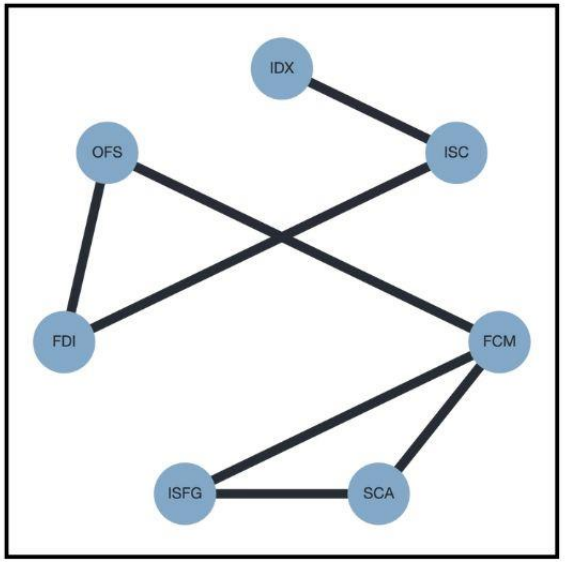


S9.10 – Any Adverse Events

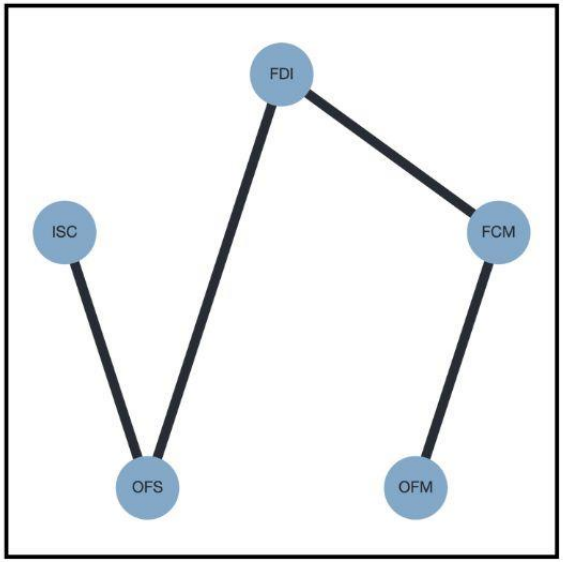
Geometry of the Network - Any Adverse Events



Overall



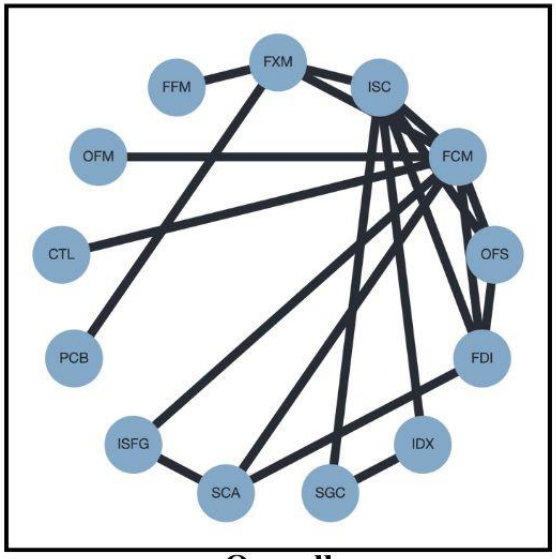
Renal



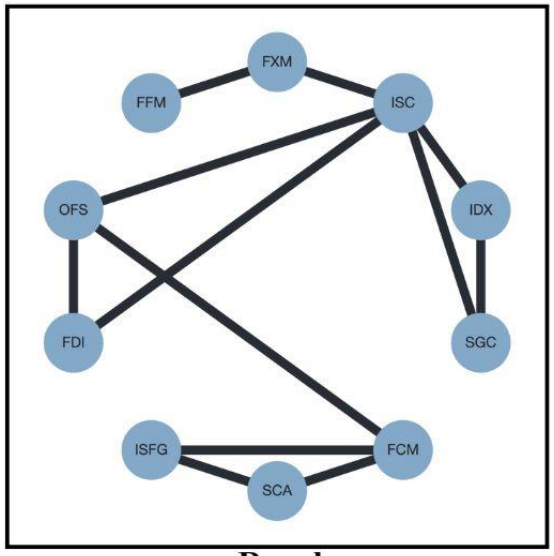
GI

S9.11 – Serious Adverse Events

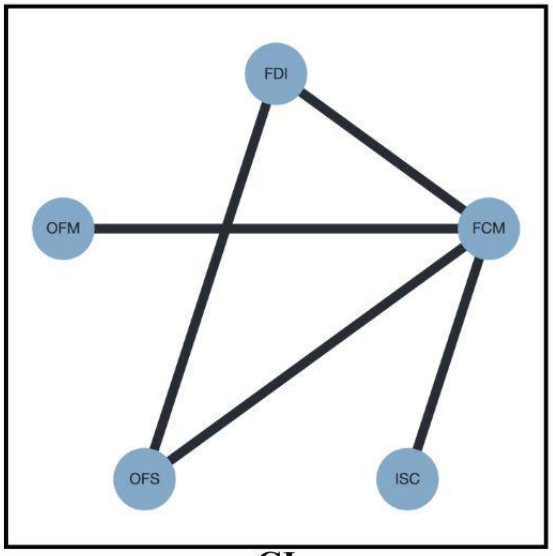
Geometry of the Network - Serious Adverse Events



Overall



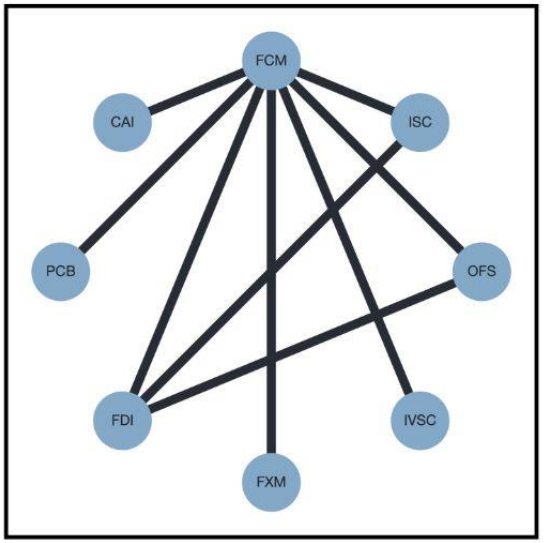
Renal



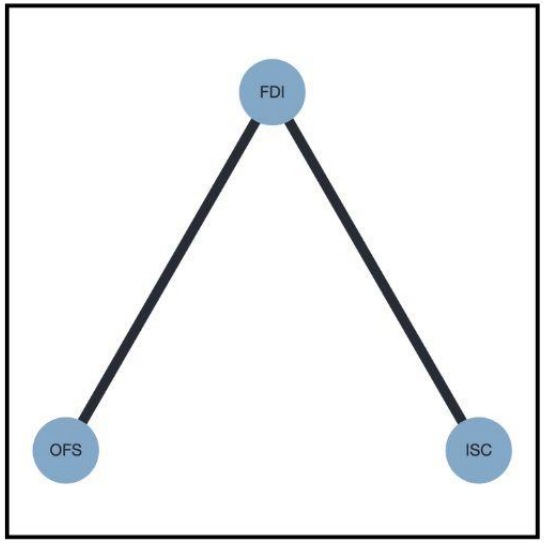
GI

S9.12 – Hypophosphatemia

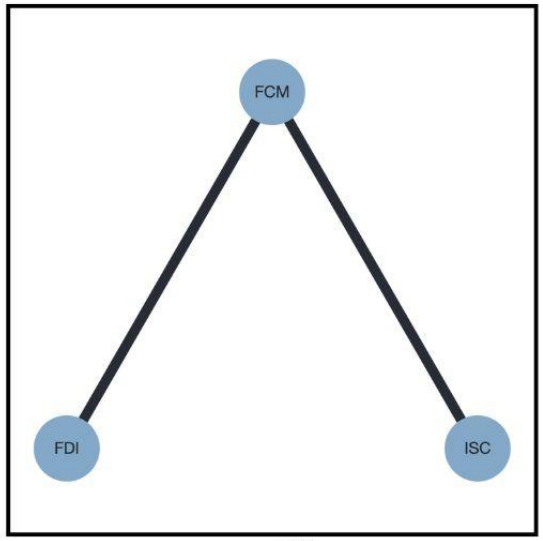
Geometry of the Network - Hypophosphatemia



Overall



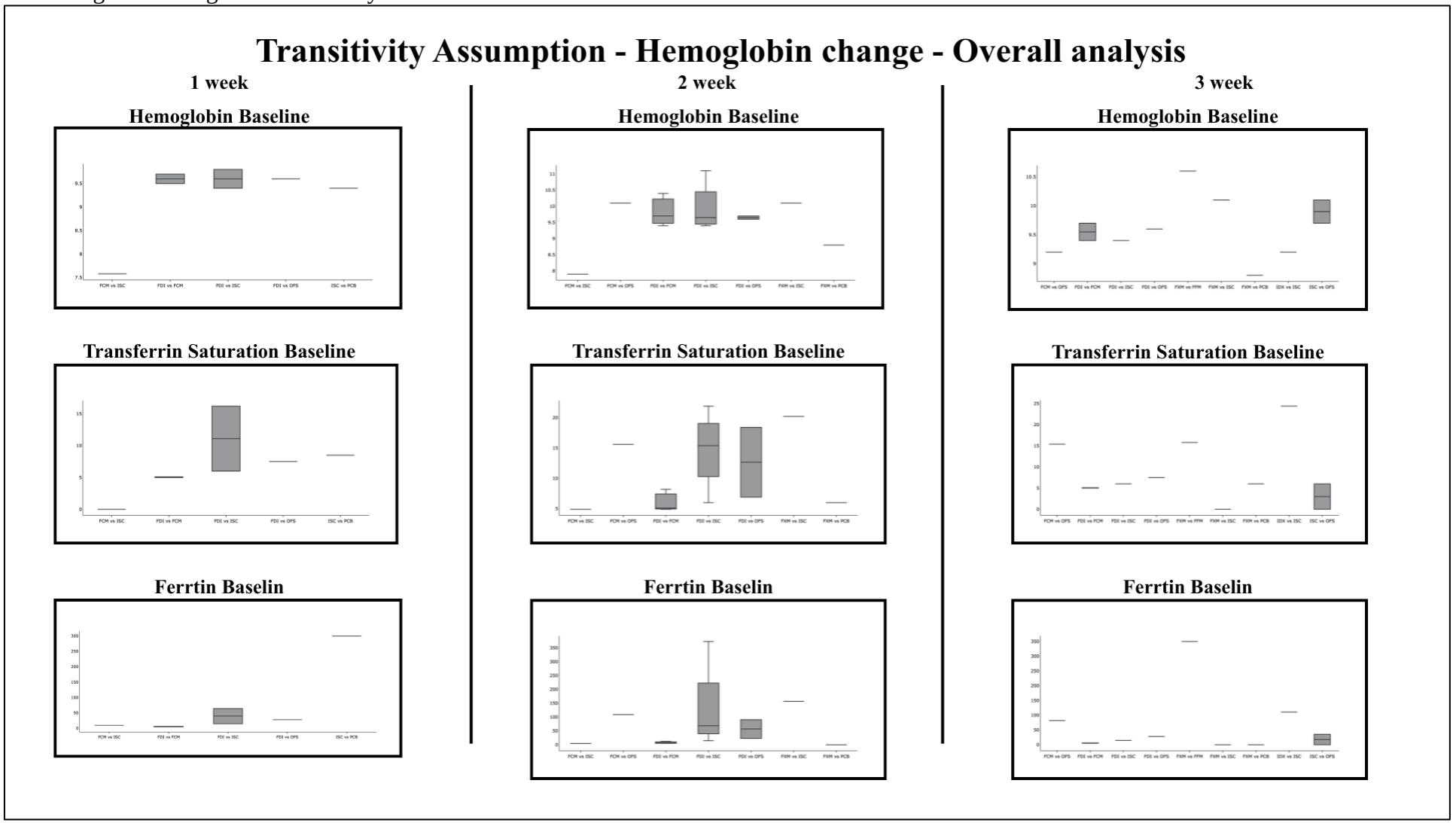
Renal



GI

Supplement 10 – Transitivity Assumption

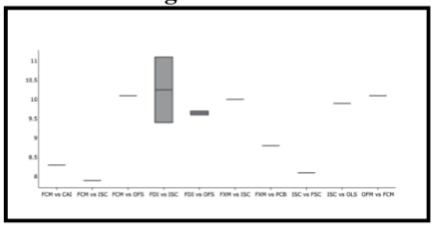
S10.1 – Hemoglobin change - Overall analysis.



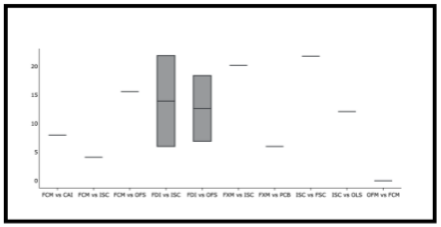
Transitivity Assumption - Hemoglobin change - Overall analysis

4 week

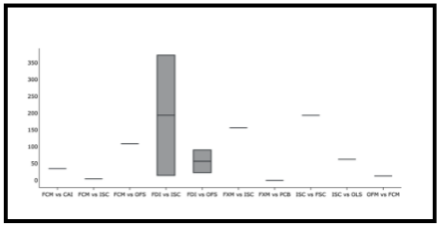
Hemoglobin Baseline



Transferrin Saturation Baseline

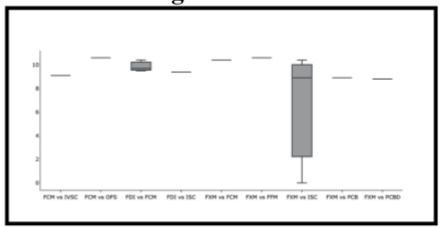


Ferrtin Baselin

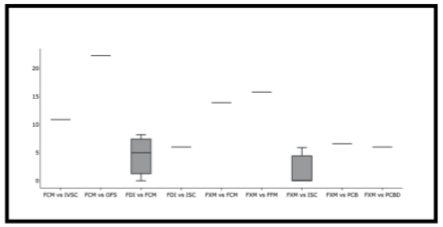


5 week

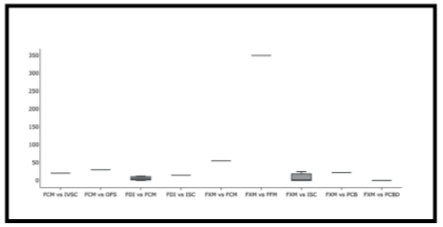
Hemoglobin Baseline



Transferrin Saturation Baseline

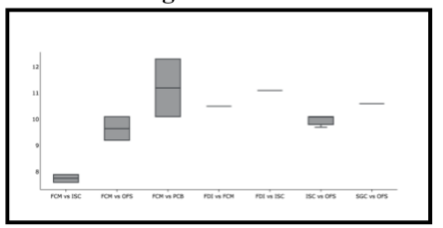


Ferrtin Baselin

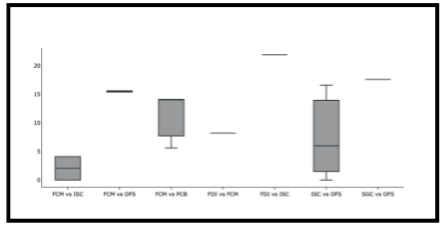


6 week

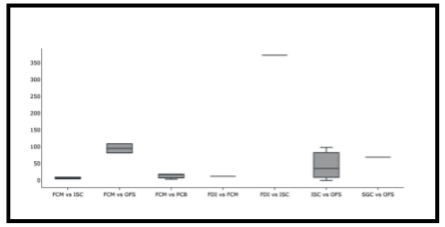
Hemoglobin Baseline



Transferrin Saturation Baseline



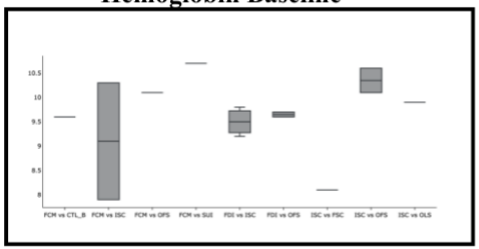
Ferrtin Baselin



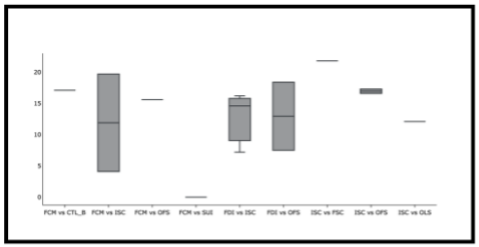
Transitivity Assumption - Hemoglobin change - Overall analysis

8 week

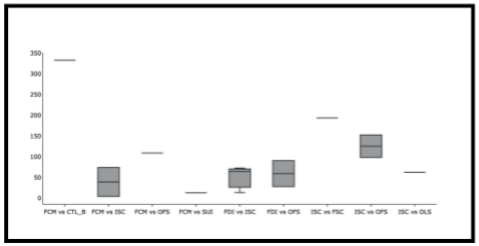
Hemoglobin Baseline



Transferrin Saturation Baseline

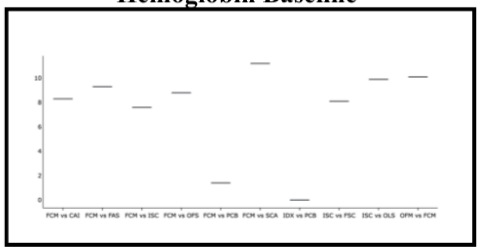


Ferrtin Baselin

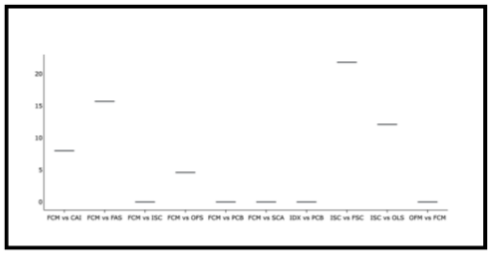


12 week

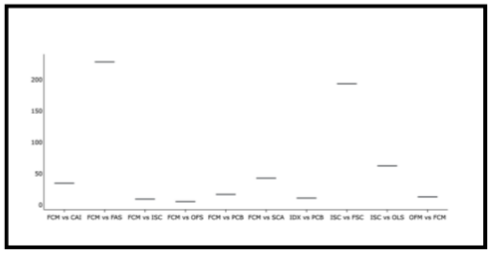
Hemoglobin Baseline



Transferrin Saturation Baseline

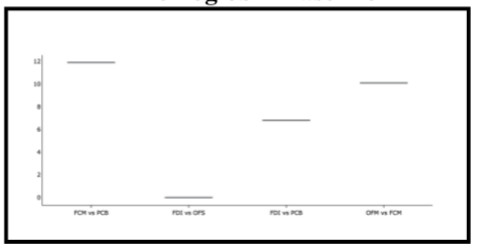


Ferrtin Baselin



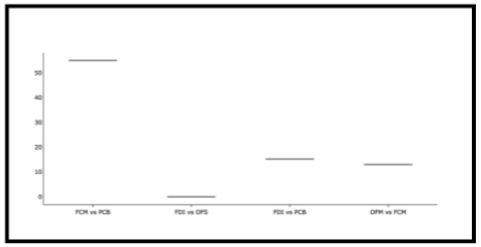
24 week

Hemoglobin Baseline



Transferrin Saturation Baseline

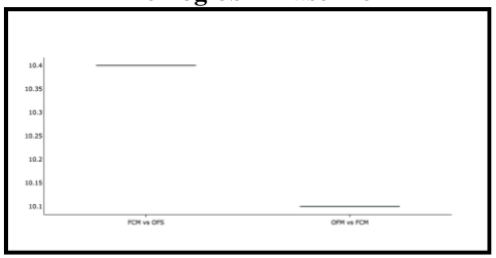
Ferrtin Baselin



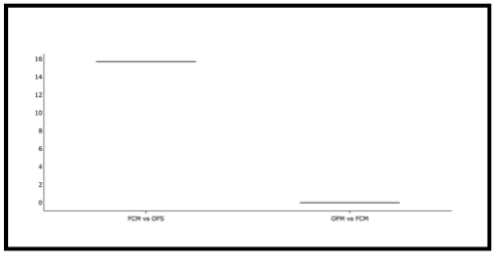
Transitivity Assumption - Hemoglobin change - Overall analysis

52 week

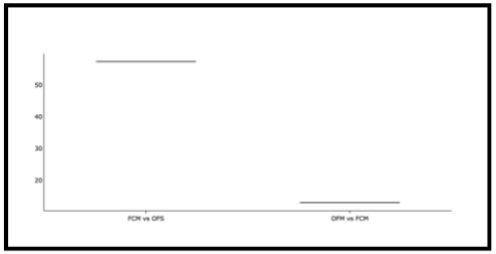
Hemoglobin Baseline



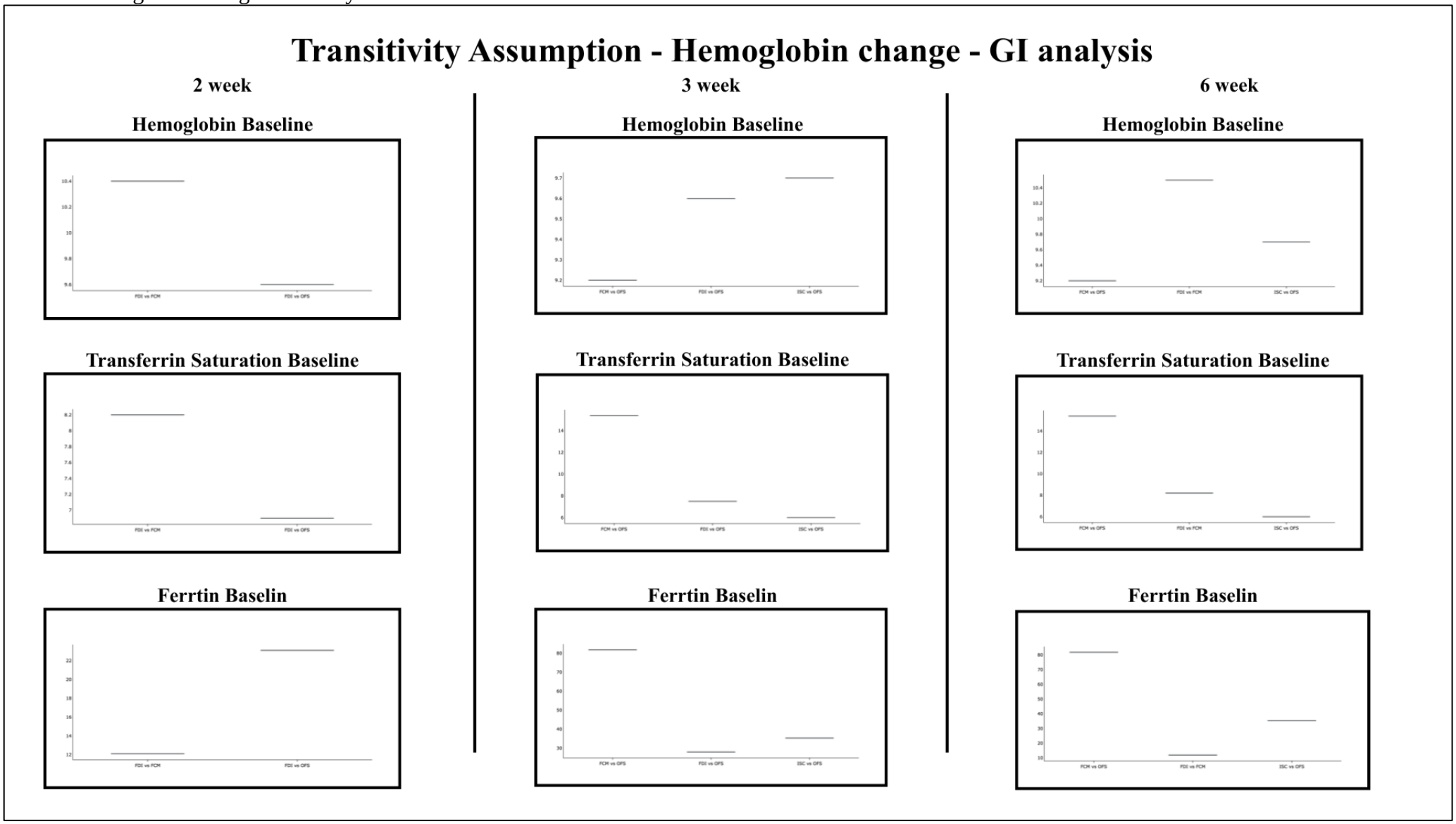
Transferrin Saturation Baseline



Ferrtin Baselin



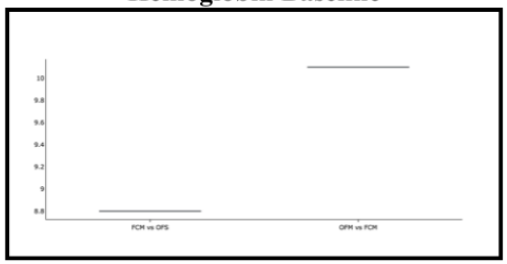
S10.2 – Hemoglobin change - GI analysis.



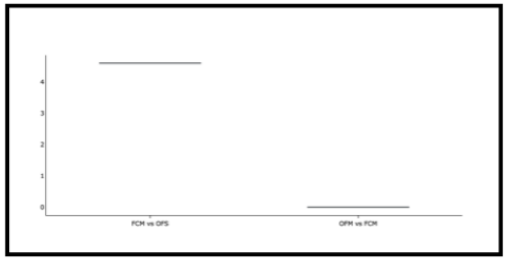
Transitivity Assumption - Hemoglobin change - GI analysis

12 week

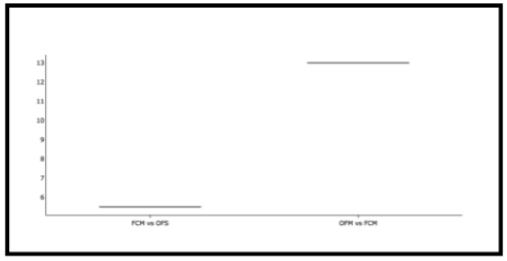
Hemoglobin Baseline



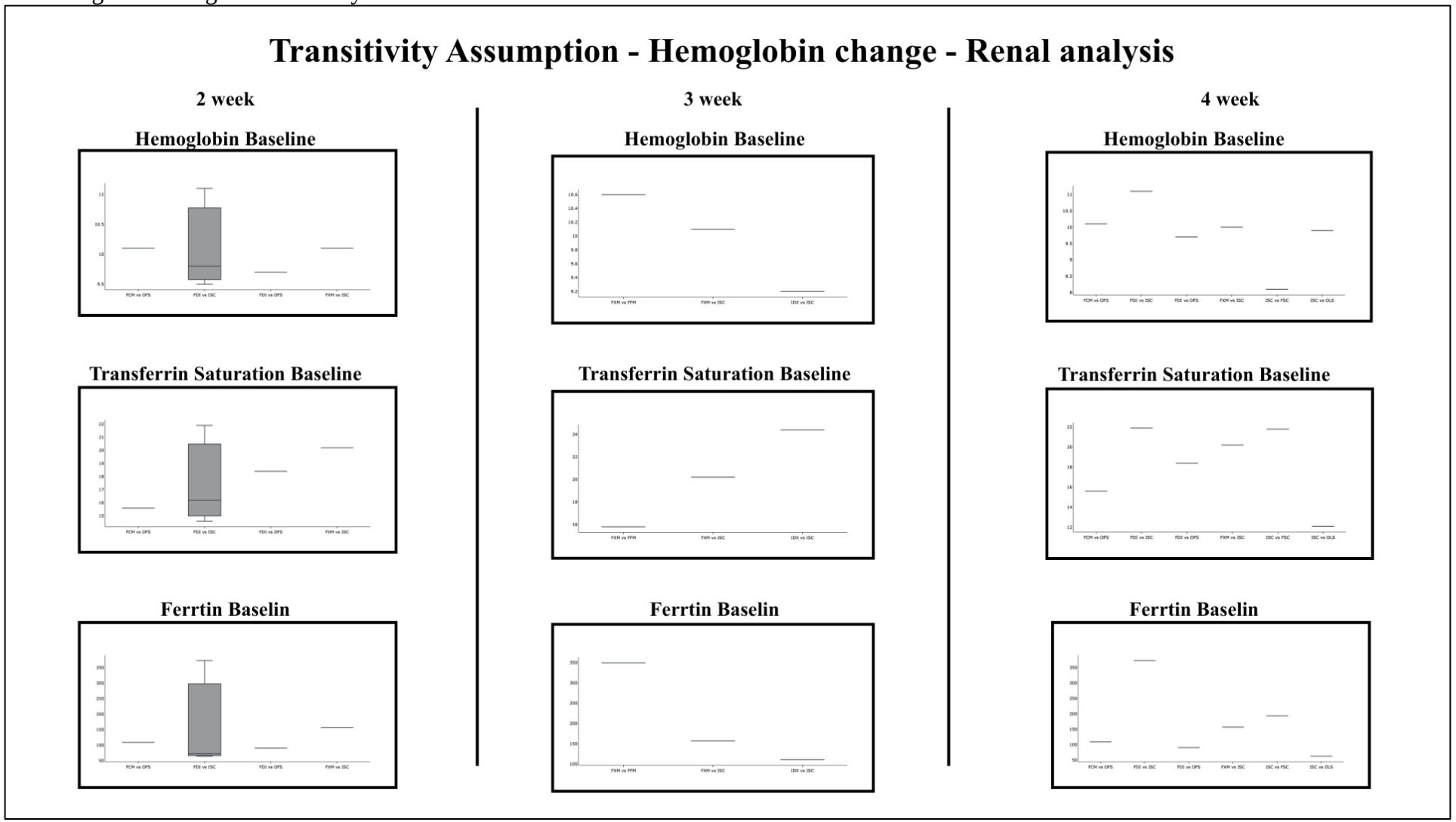
Transferrin Saturation Baseline



Ferrtin Baselin



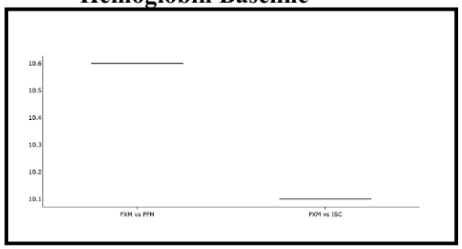
S10.3 – Hemoglobin change - Renal analysis.



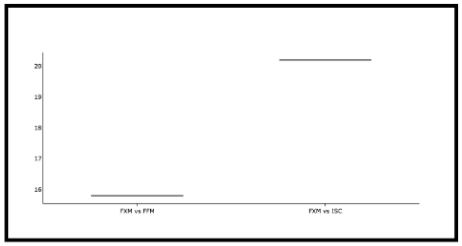
Transitivity Assumption - Hemoglobin change - Renal analysis

5 week

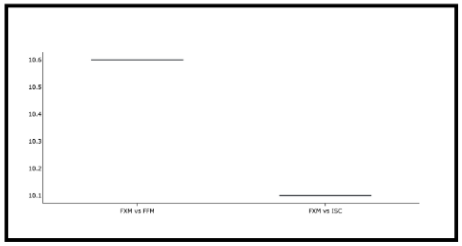
Hemoglobin Baseline



Transferrin Saturation Baseline

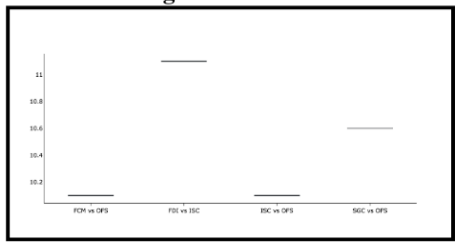


Ferrtin Baselin

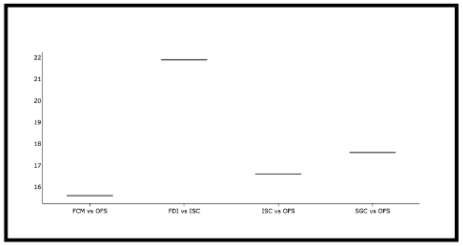


6 week

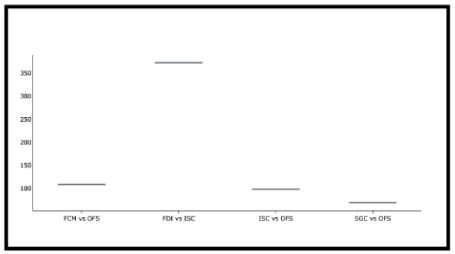
Hemoglobin Baseline



Transferrin Saturation Baseline

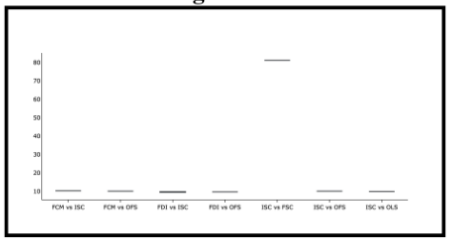


Ferrtin Baselin

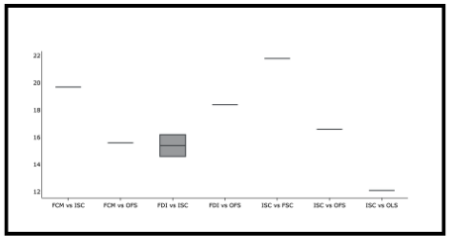


8 week

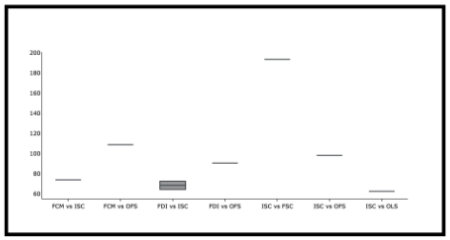
Hemoglobin Baseline



Transferrin Saturation Baseline



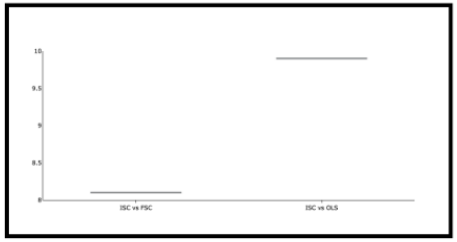
Ferrtin Baselin



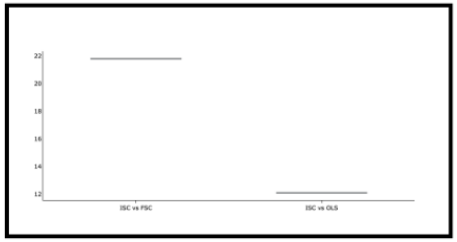
Transitivity Assumption - Hemoglobin change - Renal analysis

12 week

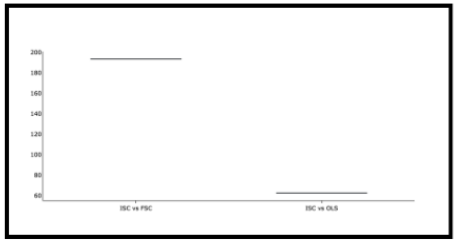
Hemoglobin Baseline



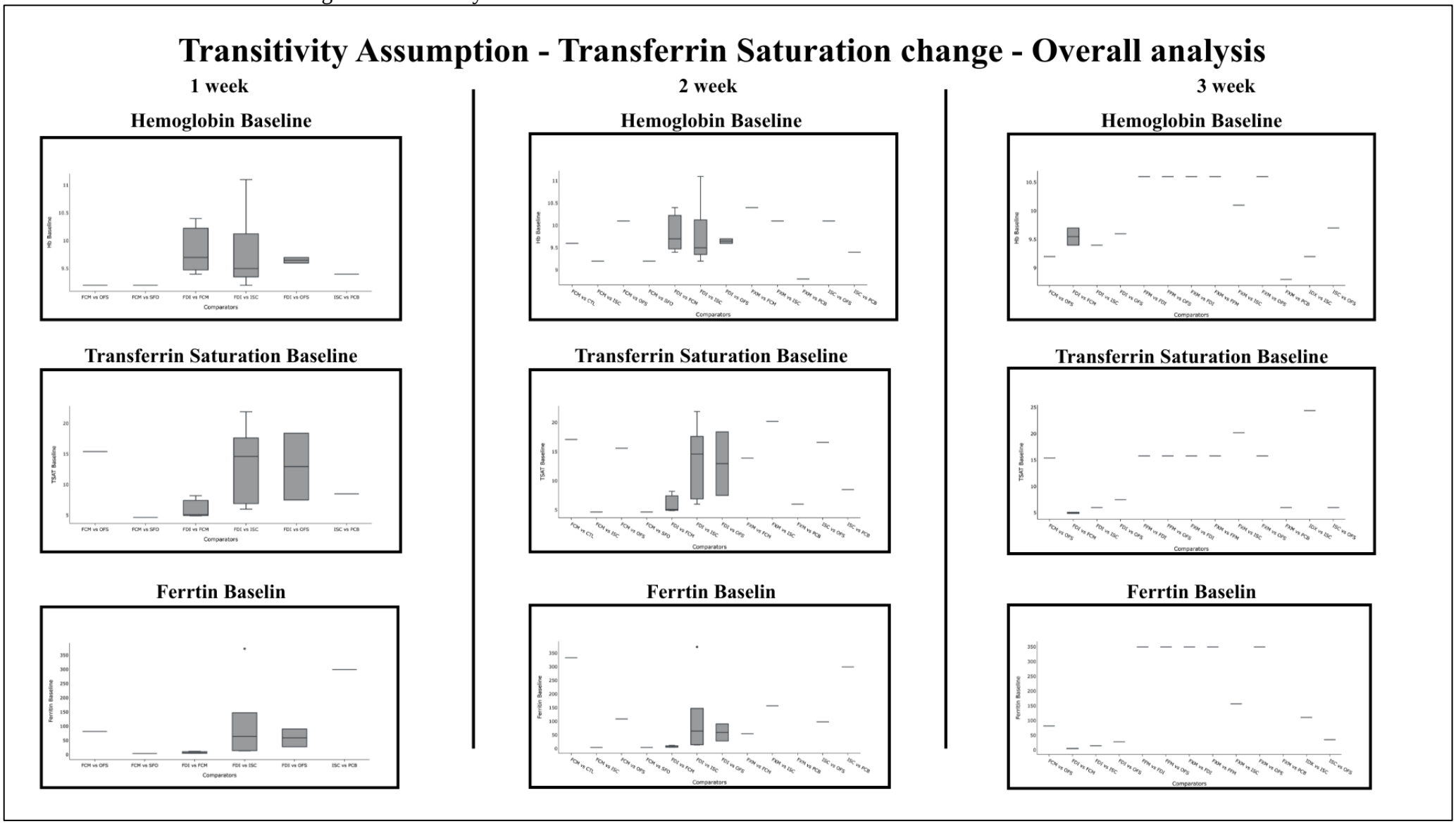
Transferrin Saturation Baseline



Ferrtin Baselin



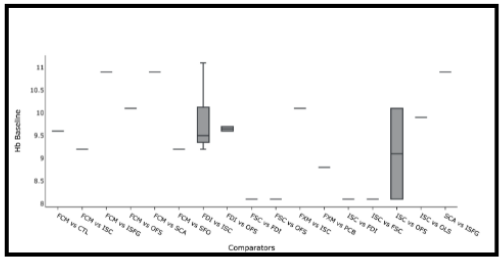
S10.4 – Transferrin saturation change - Overall analysis.



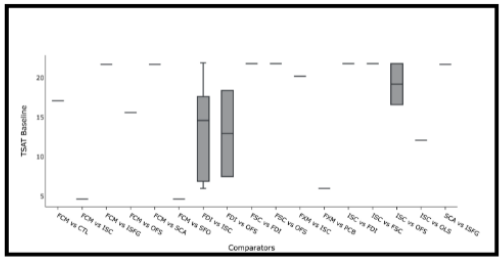
Transitivity Assumption - Transferrin Saturation change - Overall analysis

4 week

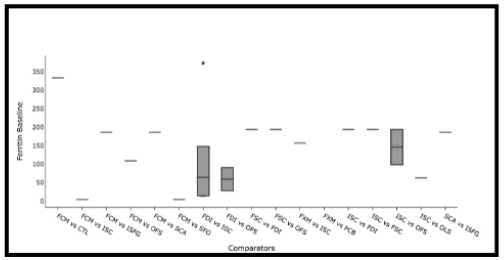
Hemoglobin Baseline



Transferrin Saturation Baseline

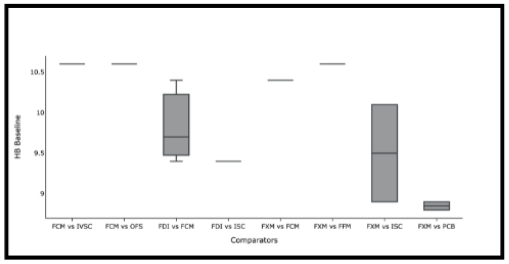


Ferrtin Baselin

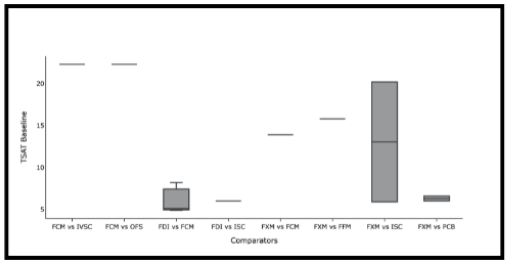


5 week

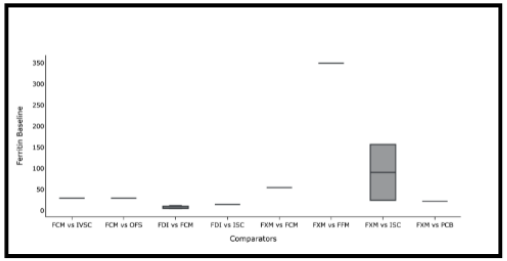
Hemoglobin Baseline



Transferrin Saturation Baseline

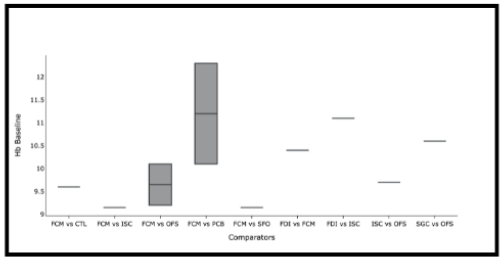


Ferrtin Baselin

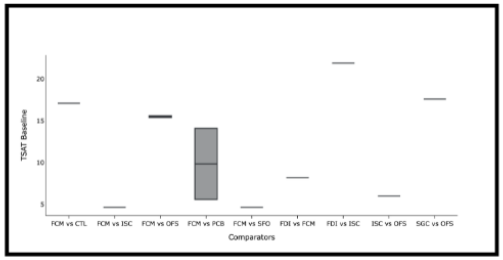


6 week

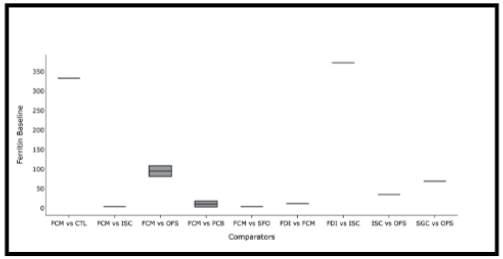
Hemoglobin Baseline



Transferrin Saturation Baseline



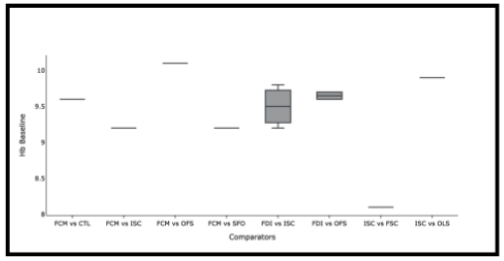
Ferrtin Baselin



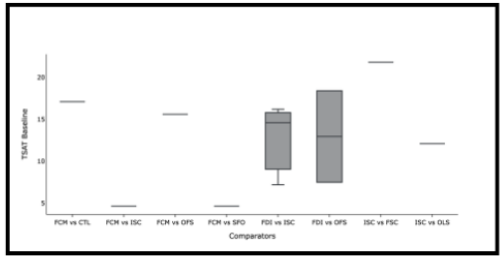
Transitivity Assumption - Transferrin Saturation change - Overall analysis

8 week

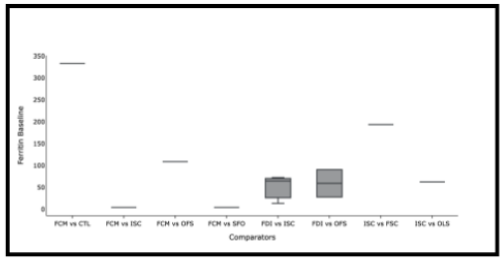
Hemoglobin Baseline



Transferrin Saturation Baseline

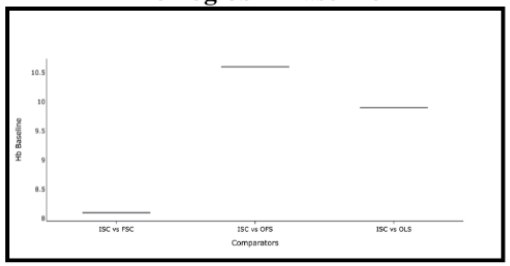


Ferrtin Baselin

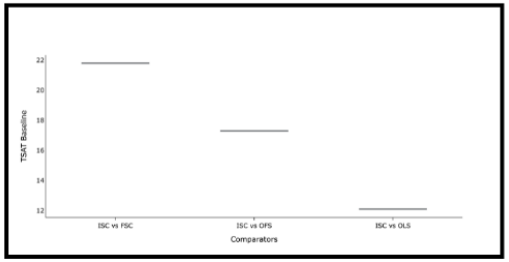


12 week

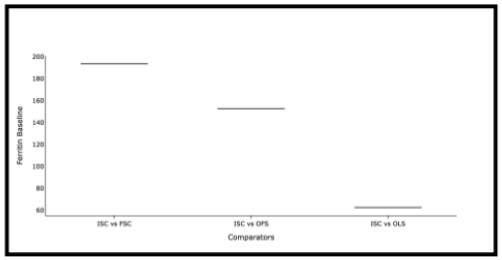
Hemoglobin Baseline



Transferrin Saturation Baseline

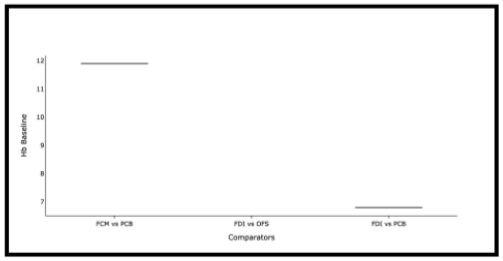


Ferrtin Baselin

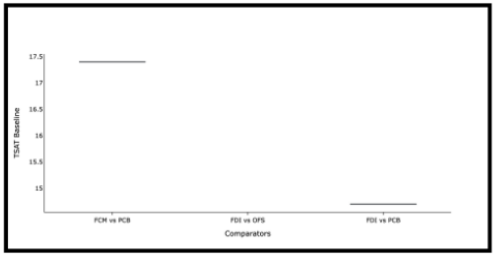


24 week

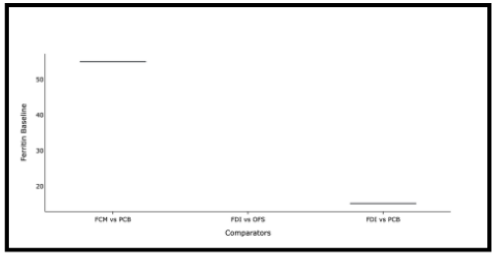
Hemoglobin Baseline



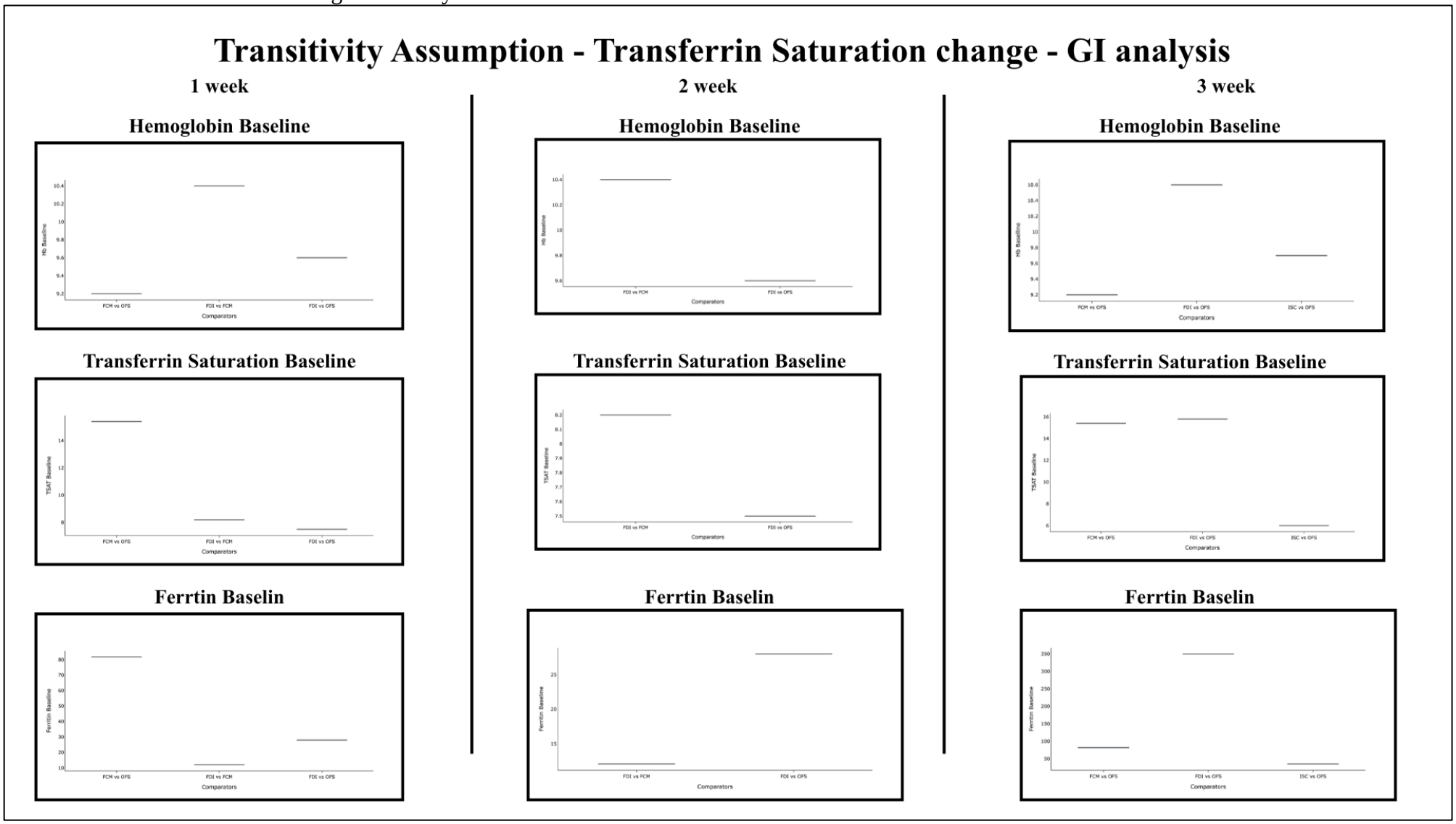
Transferrin Saturation Baseline



Ferrtin Baselin



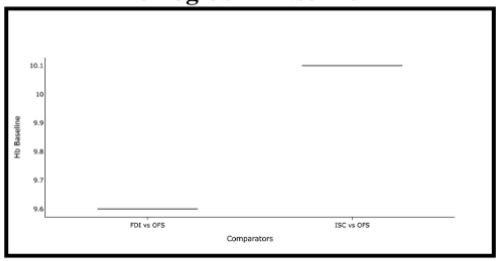
S10.5 – Transferrin saturation change - GI analysis.



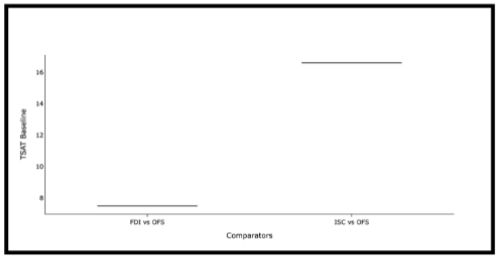
Transitivity Assumption - Transferrin Saturation change - GI analysis

4 week

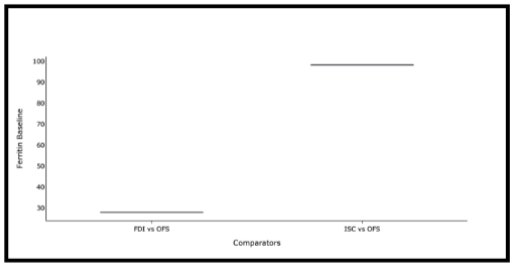
Hemoglobin Baseline



Transferrin Saturation Baseline

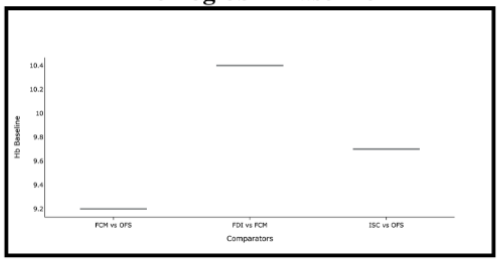


Ferrtin Baselin

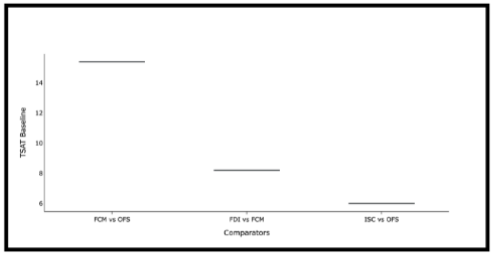


6 week

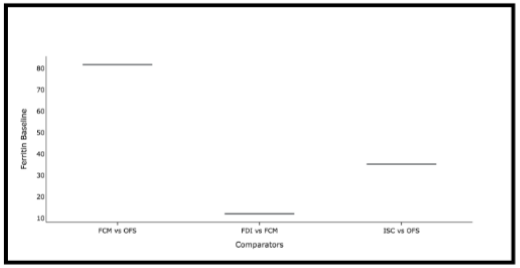
Hemoglobin Baseline



Transferrin Saturation Baseline

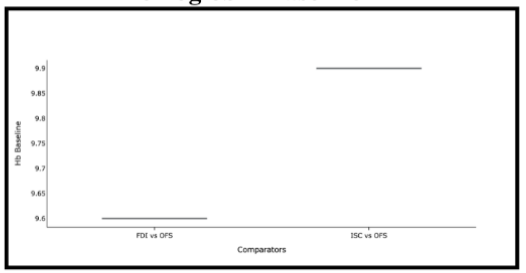


Ferrtin Baselin

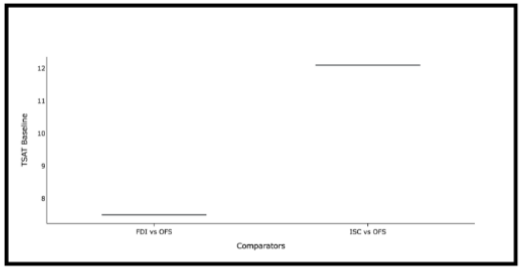


8 week

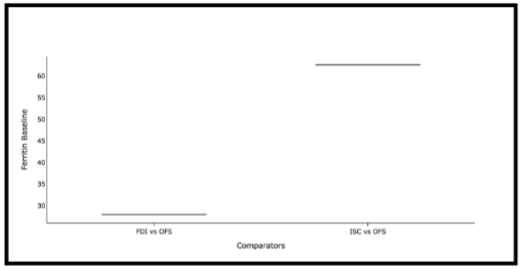
Hemoglobin Baseline



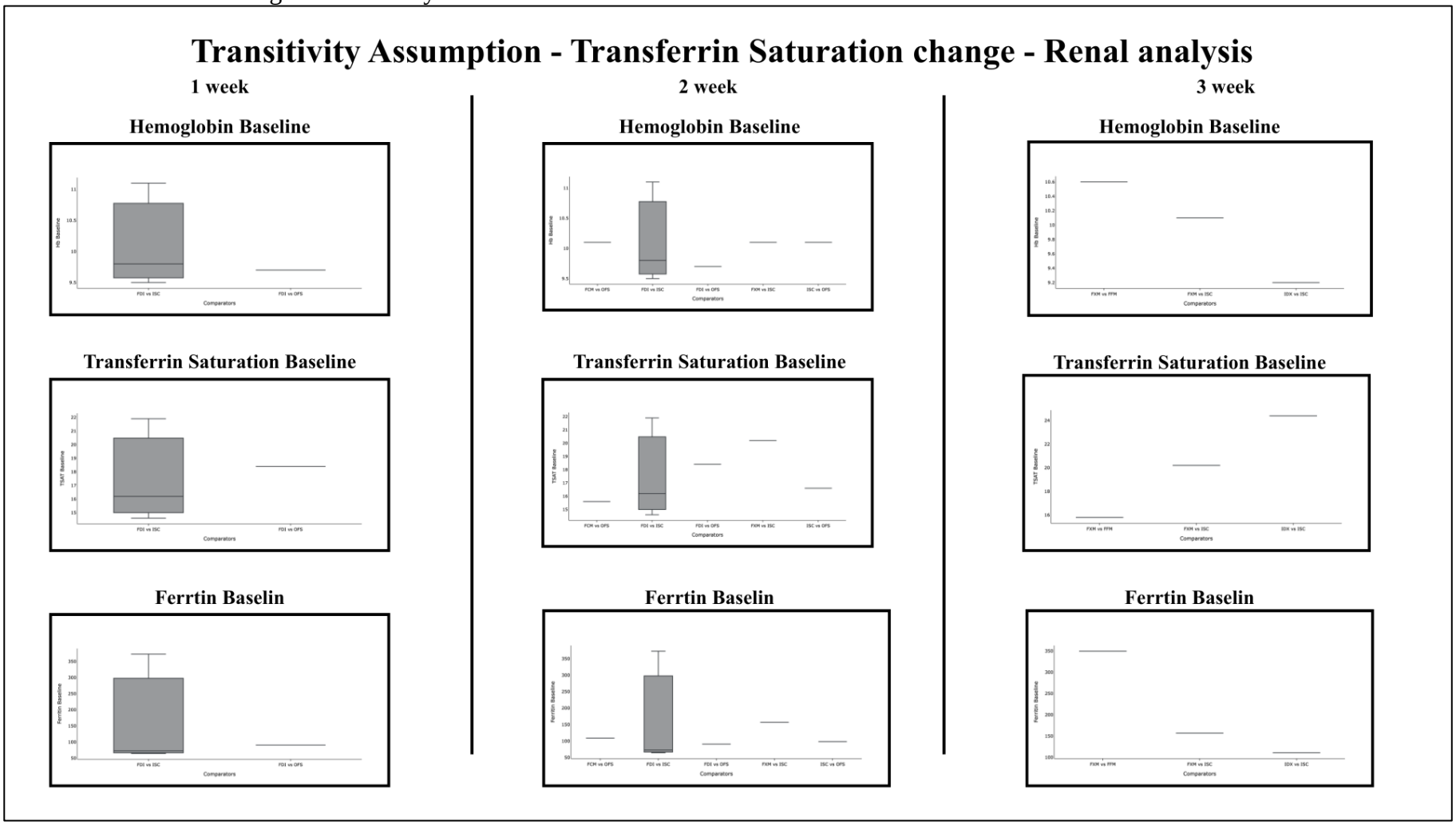
Transferrin Saturation Baseline



Ferrtin Baselin



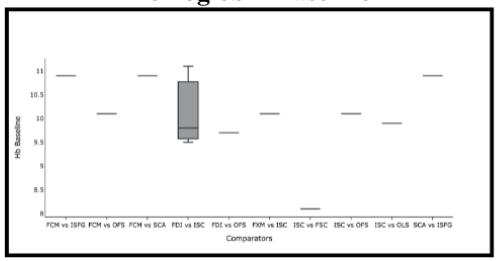
S10.6 – Transferrin saturation change - Renal analysis.



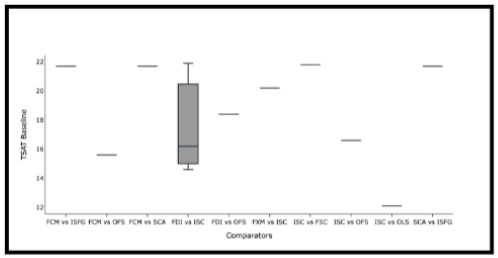
Transitivity Assumption - Transferrin Saturation change - Renal analysis

4 week

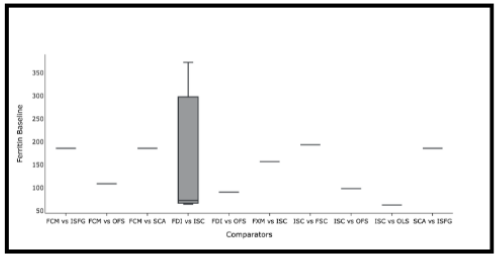
Hemoglobin Baseline



Transferrin Saturation Baseline

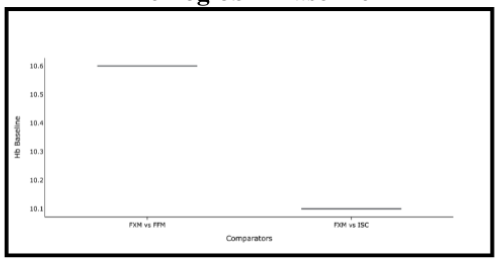


Ferrtin Baselin

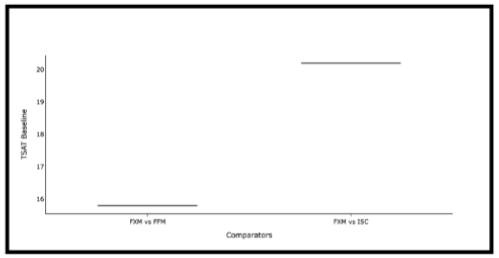


5 week

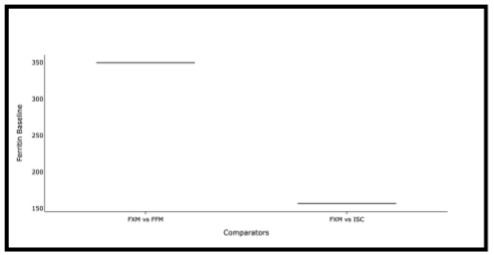
Hemoglobin Baseline



Transferrin Saturation Baseline

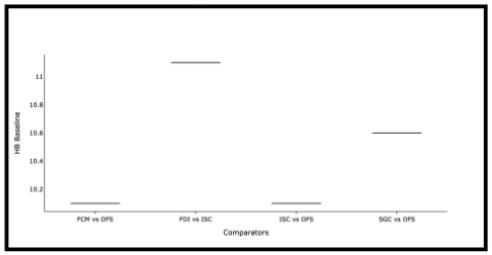


Ferrtin Baselin

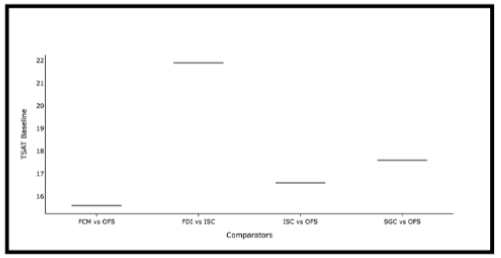


6 week

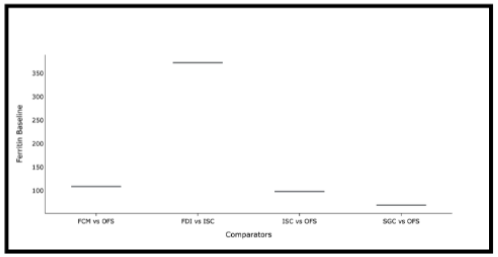
Hemoglobin Baseline



Transferrin Saturation Baseline



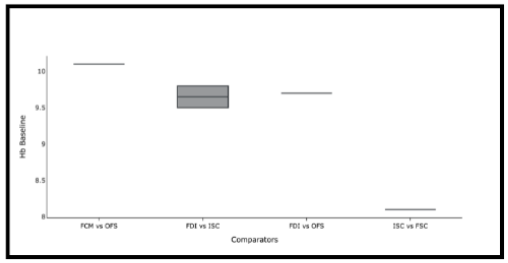
Ferrtin Baselin



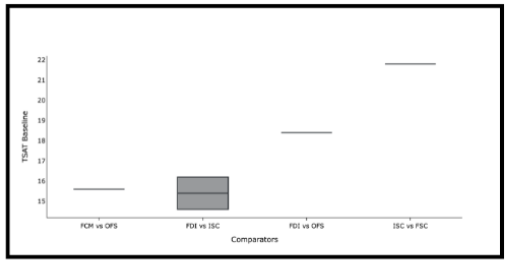
Transitivity Assumption - Transferrin Saturation change - Renal analysis

8 week

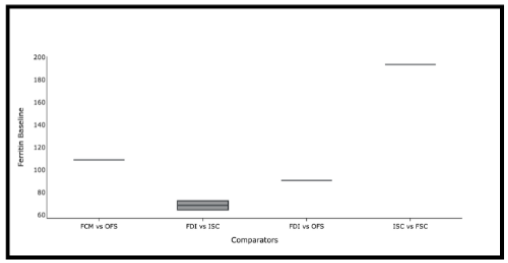
Hemoglobin Baseline



Transferrin Saturation Baseline

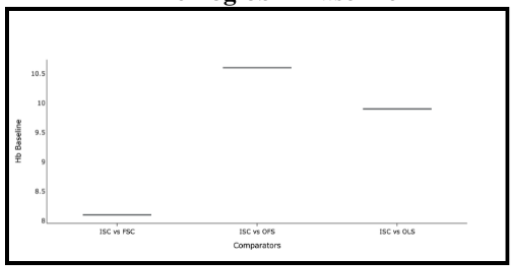


Ferrtin Baselin

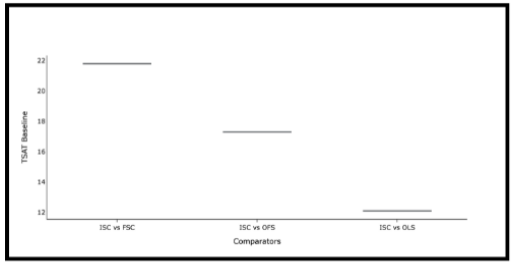


12 week

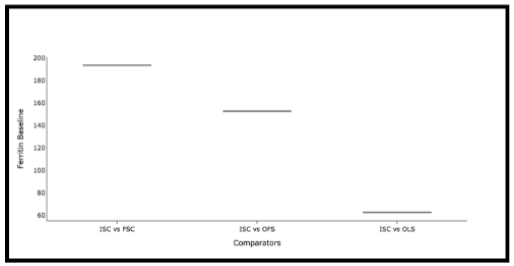
Hemoglobin Baseline



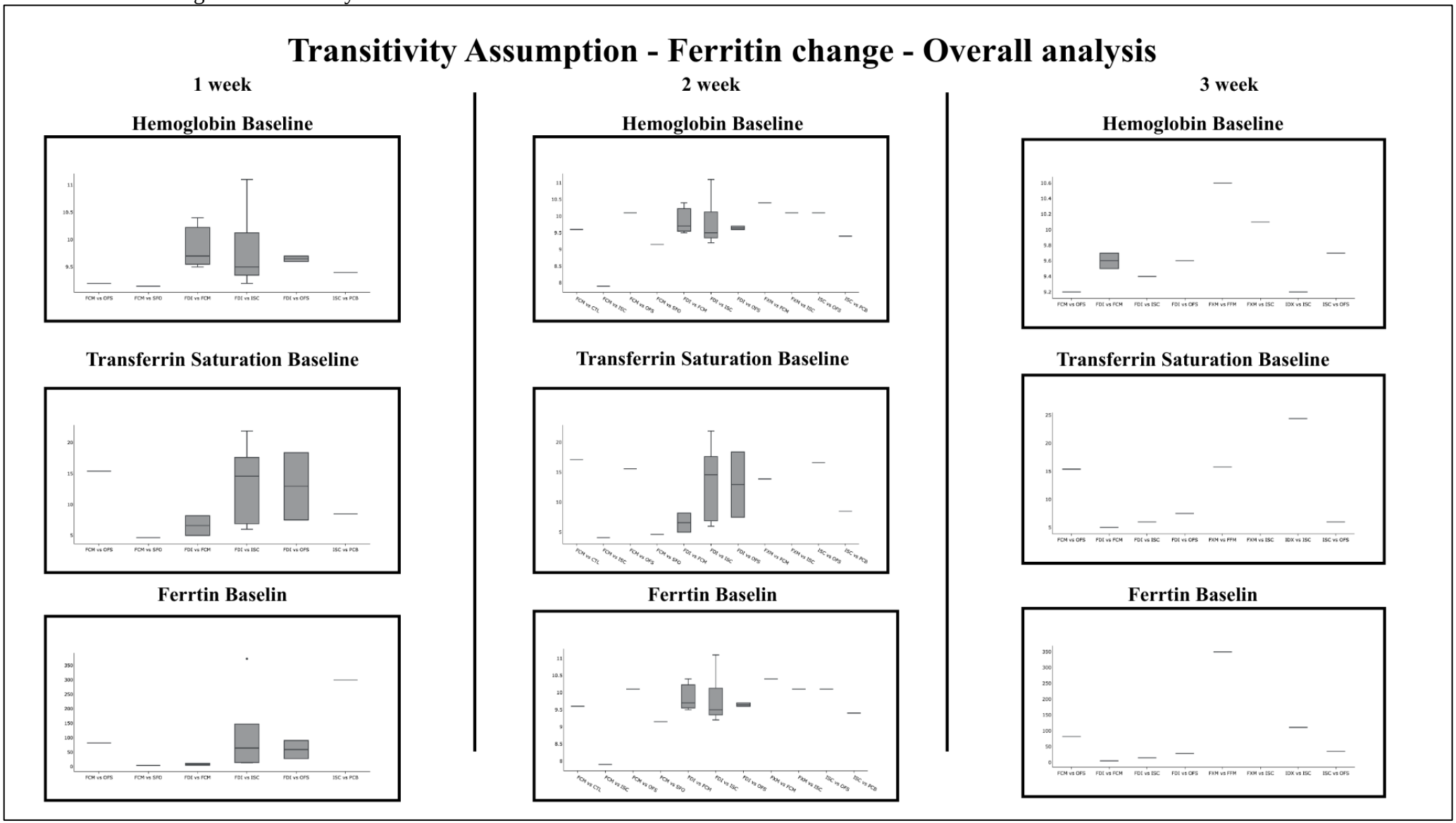
Transferrin Saturation Baseline



Ferrtin Baselin



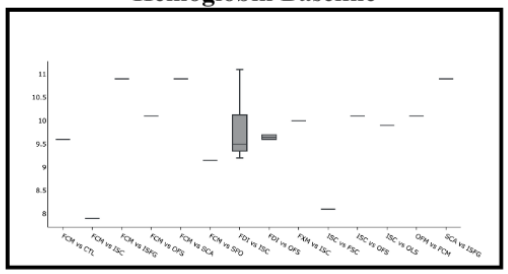
S10.7 – Ferritin change - Overall analysis.



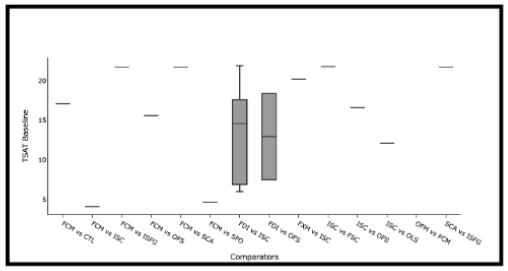
Transitivity Assumption - Ferritin change - Overall analysis

4 week

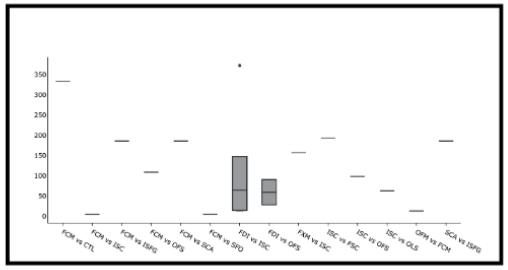
Hemoglobin Baseline



Transferrin Saturation Baseline

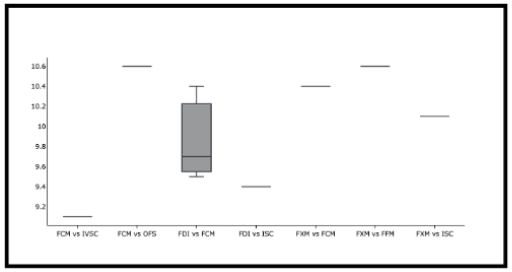


Ferrtin Baselin

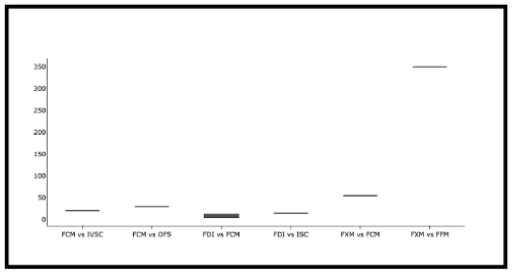


5 week

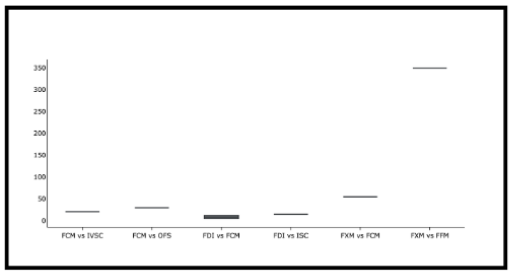
Hemoglobin Baseline



Transferrin Saturation Baseline

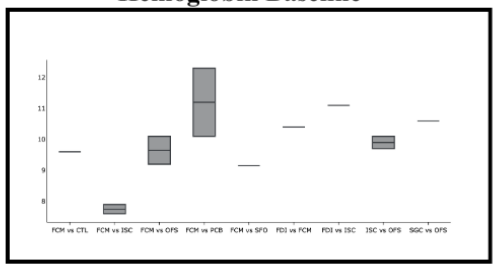


Ferrtin Baselin

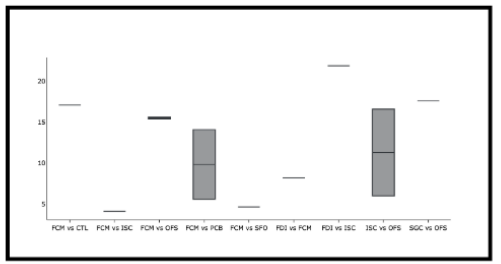


6 week

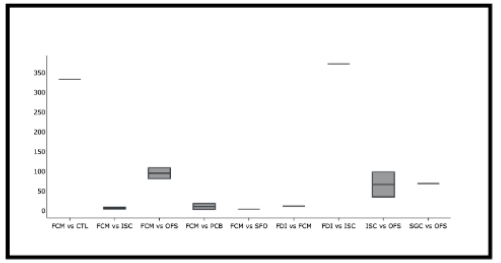
Hemoglobin Baseline



Transferrin Saturation Baseline



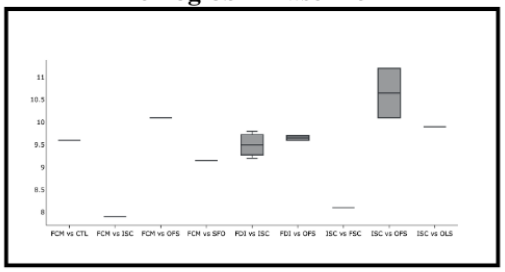
Ferrtin Baselin



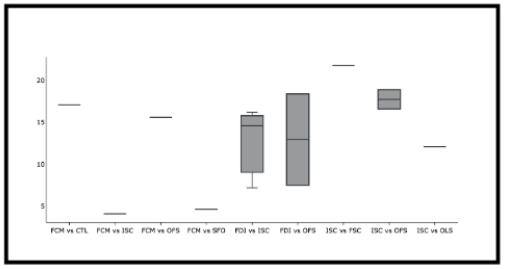
Transitivity Assumption - Ferritin change - Overall analysis

8 week

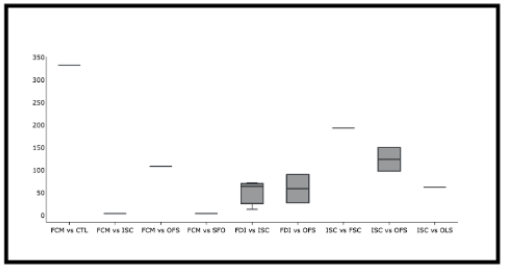
Hemoglobin Baseline



Transferrin Saturation Baseline

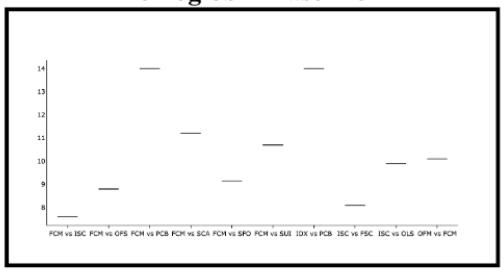


Ferrtin Baselin

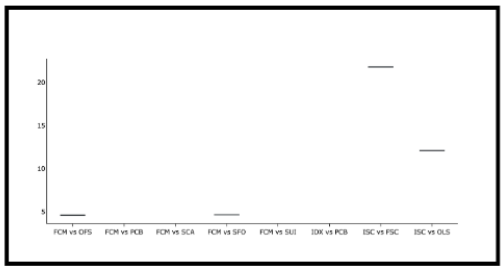


12 week

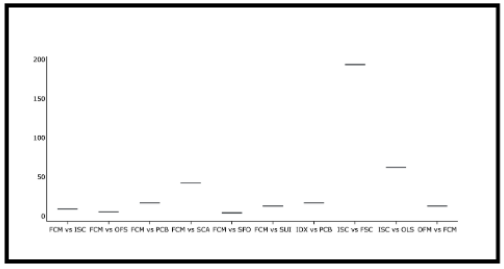
Hemoglobin Baseline



Transferrin Saturation Baseline

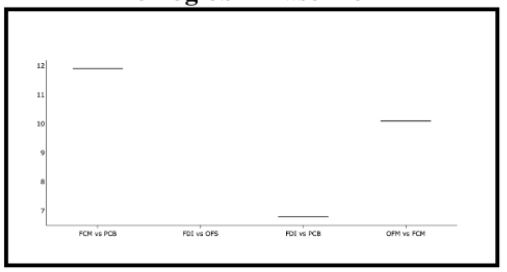


Ferrtin Baselin

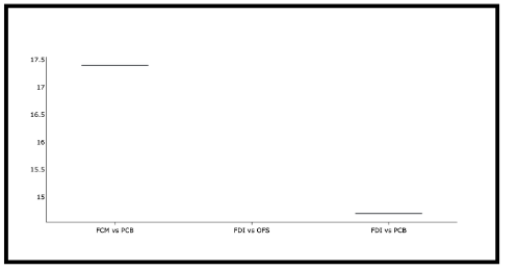


24 week

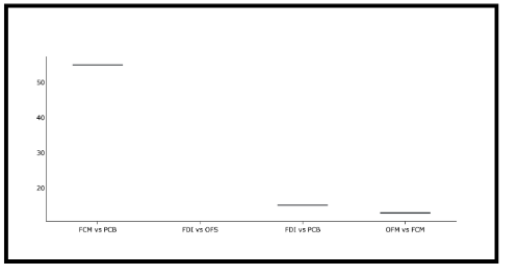
Hemoglobin Baseline



Transferrin Saturation Baseline



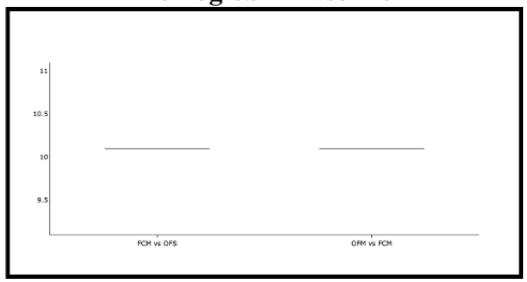
Ferrtin Baselin



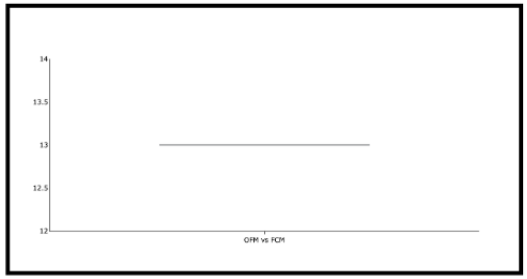
Transitivity Assumption - Ferritin change - Overall analysis

52 week

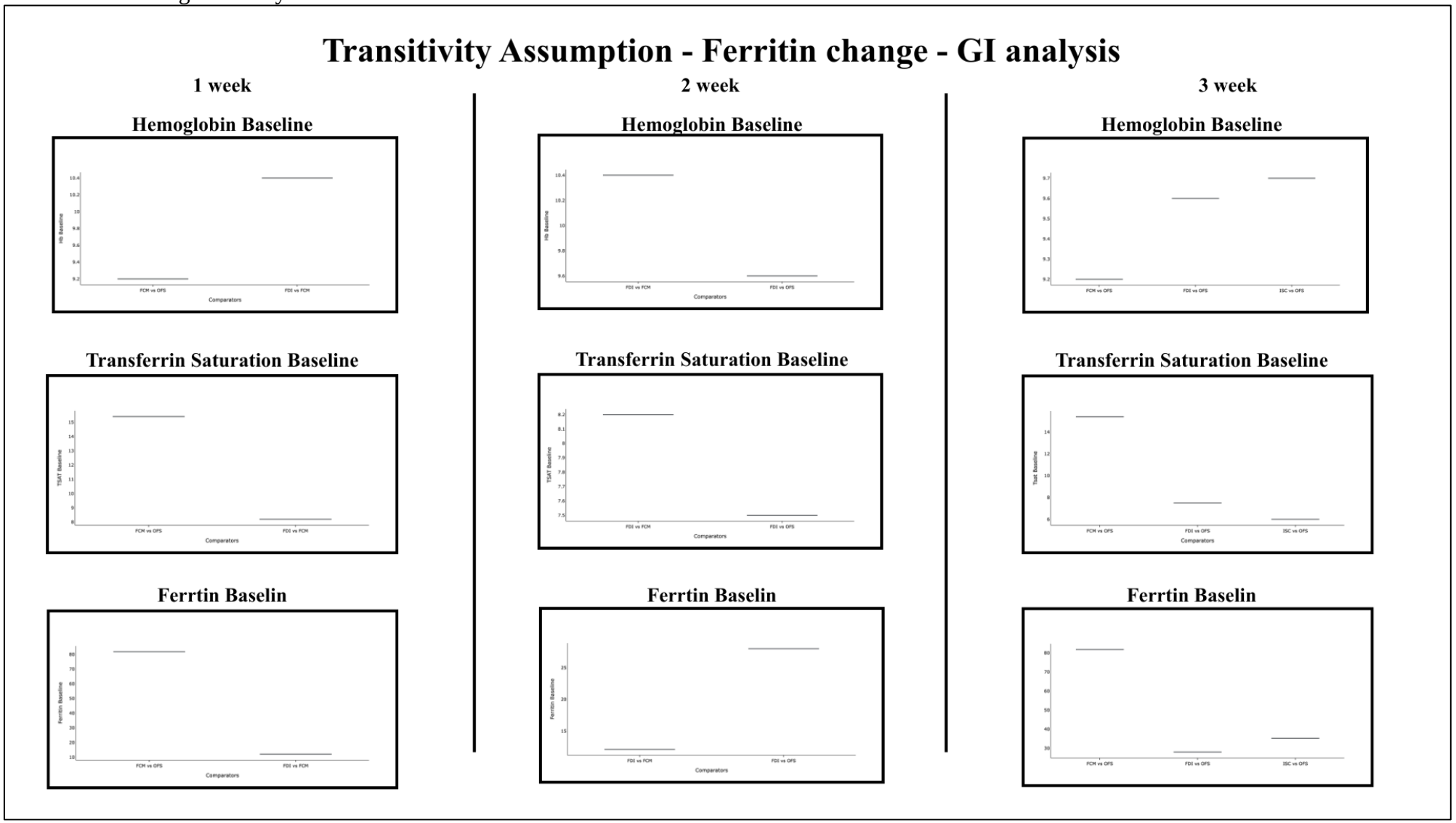
Hemoglobin Baseline



Ferrtin Baselin



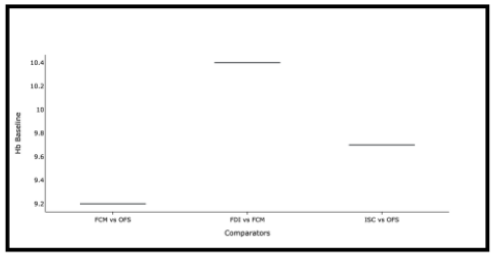
S10.8 – Ferritin change GI analysis.



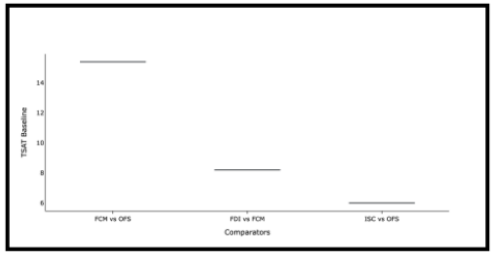
Transitivity Assumption - Ferritin change - GI analysis

6 week

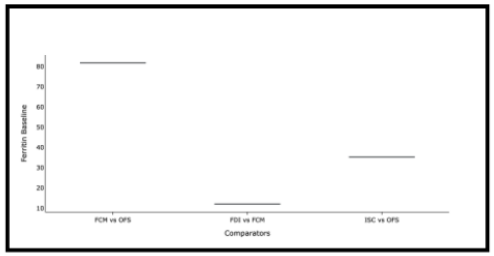
Hemoglobin Baseline



Transferrin Saturation Baseline

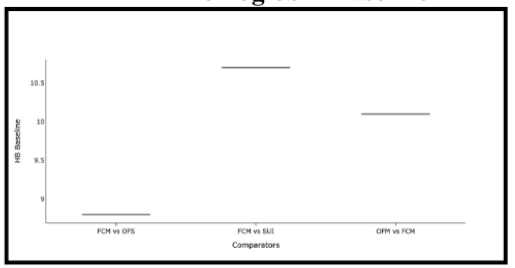


Ferrtin Baselin

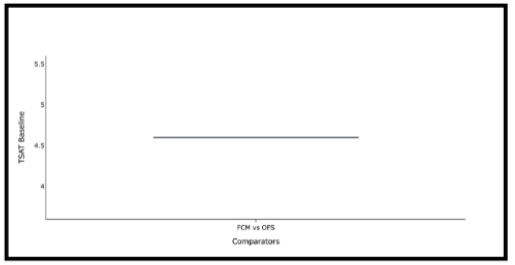


12 week

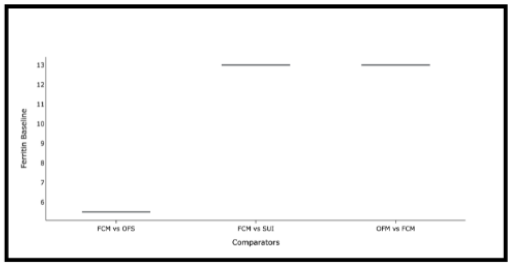
Hemoglobin Baseline



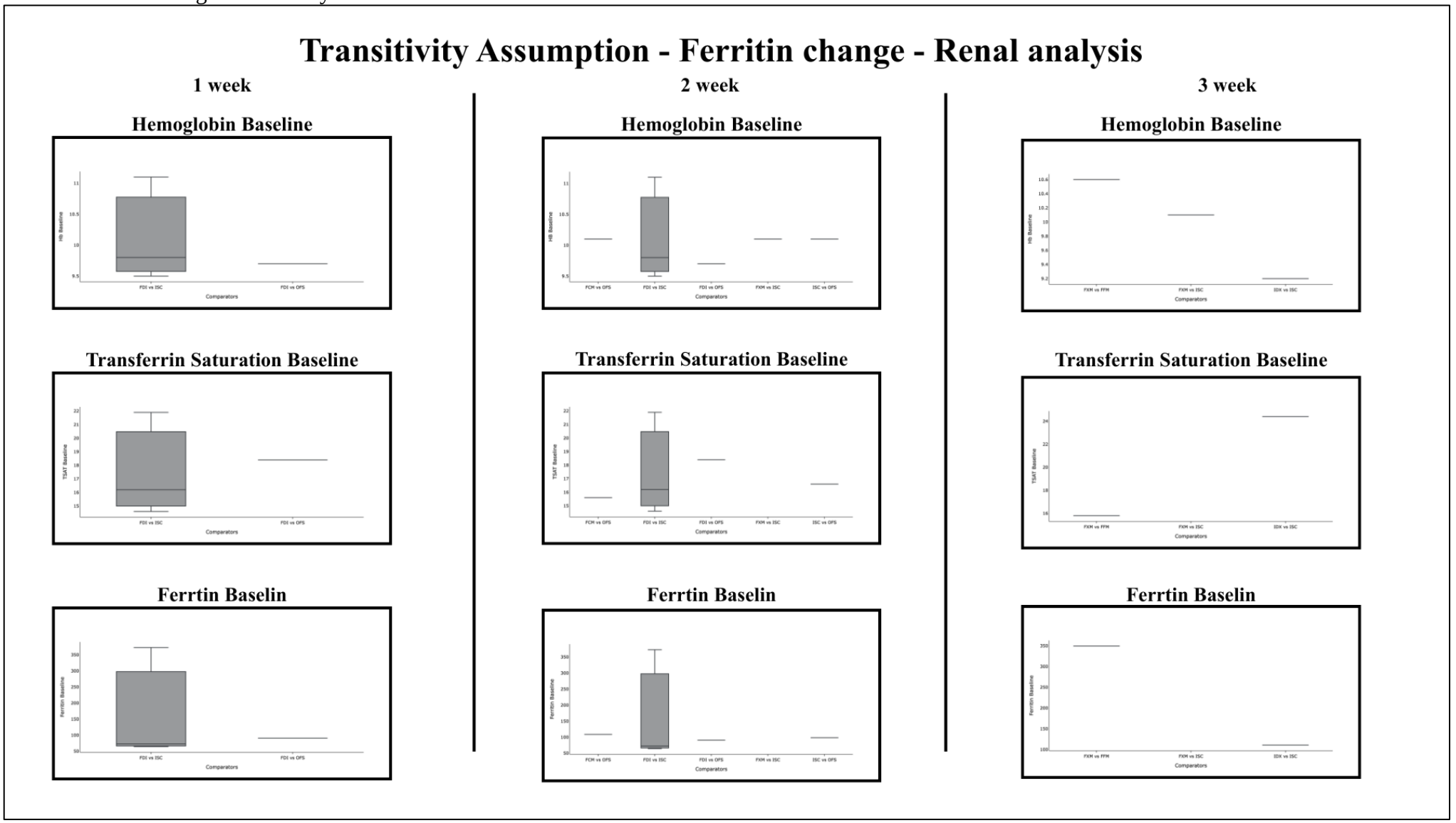
Transferrin Saturation Baseline



Ferrtin Baselin



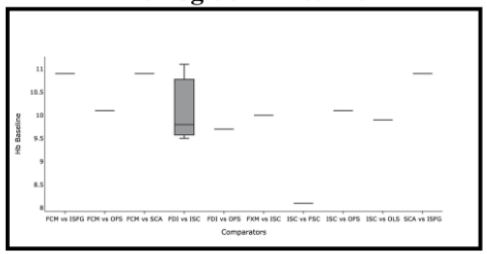
S10.9 – Ferritin change Renal analysis.



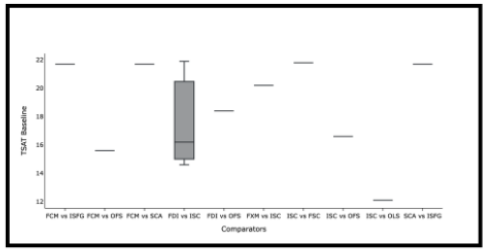
Transitivity Assumption - Ferritin change - Renal analysis

4 week

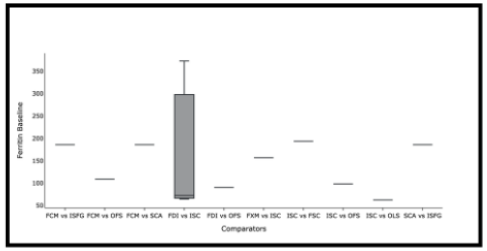
Hemoglobin Baseline



Transferrin Saturation Baseline

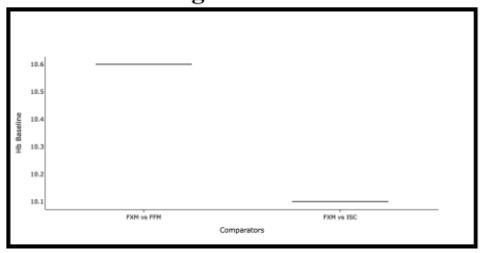


Ferrtin Baselin

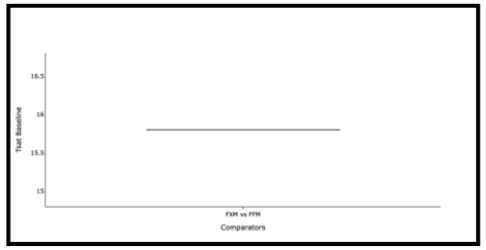


5 week

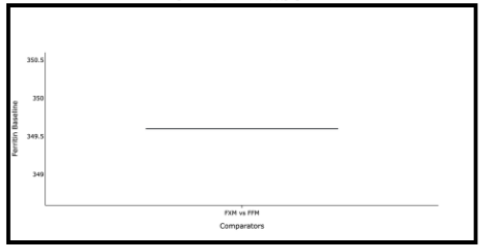
Hemoglobin Baseline



Transferrin Saturation Baseline

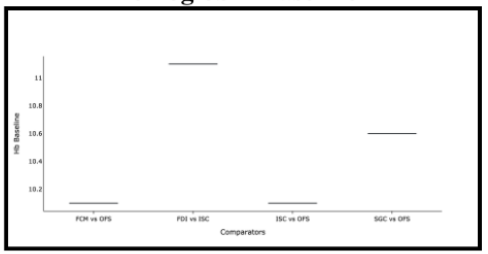


Ferrtin Baselin

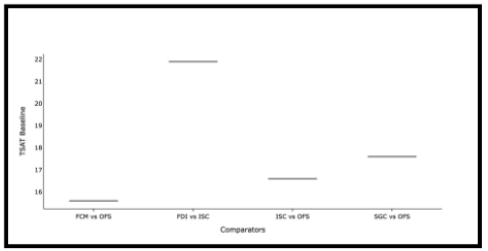


6 week

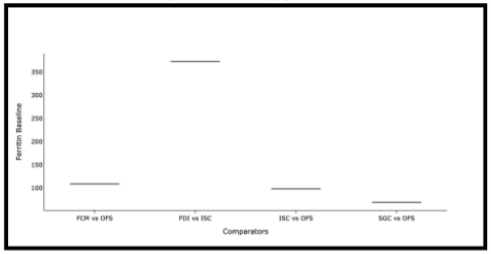
Hemoglobin Baseline



Transferrin Saturation Baseline



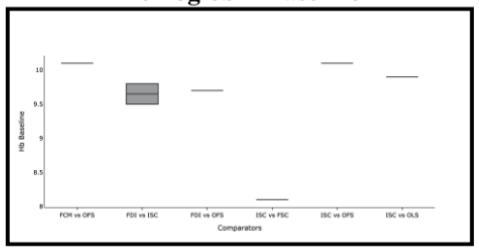
Ferrtin Baselin



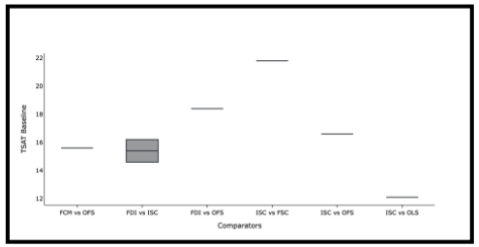
Transitivity Assumption - Ferritin change - Renal analysis

8 week

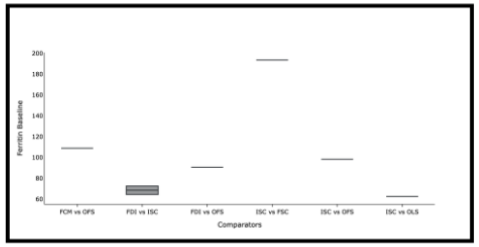
Hemoglobin Baseline



Transferrin Saturation Baseline

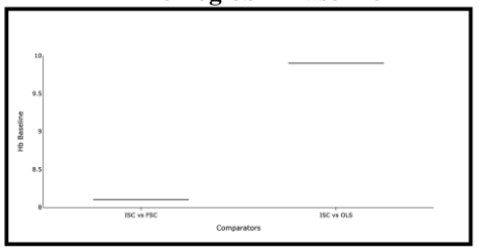


Ferrtin Baselin

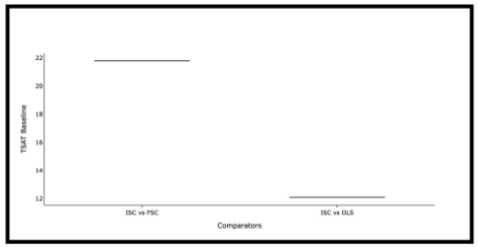


12 week

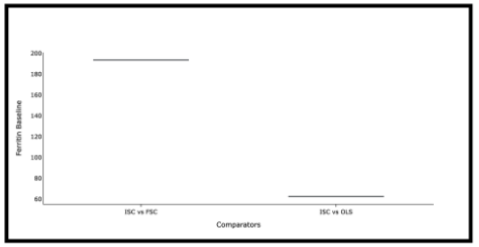
Hemoglobin Baseline



Transferrin Saturation Baseline



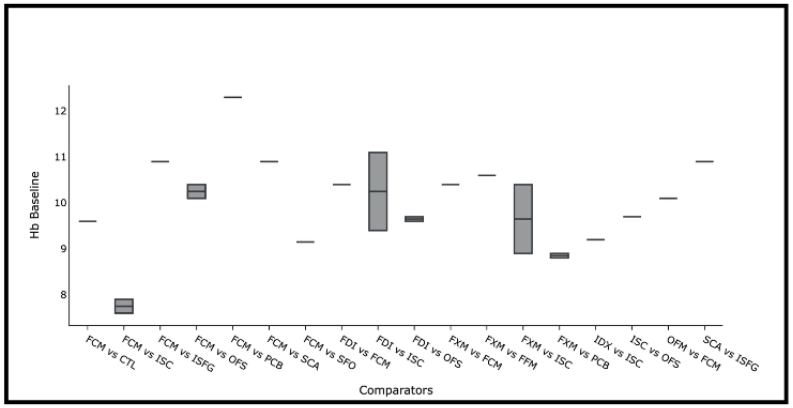
Ferrtin Baselin



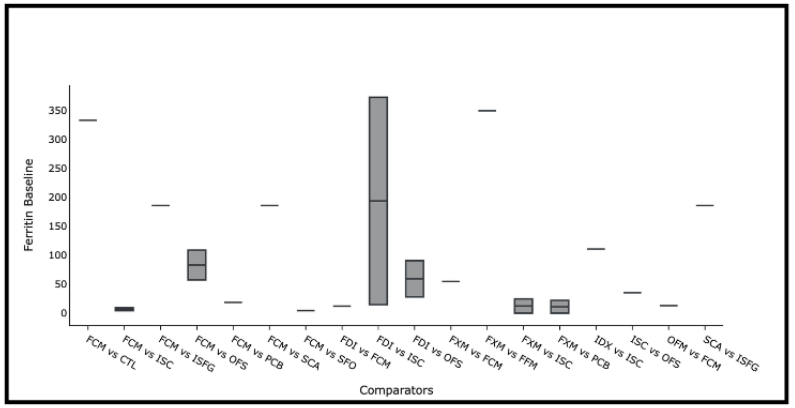
S10.10 – Any Adverse Events - Overall analysis.

Transitivity Assumption - AAE - Overall analysis

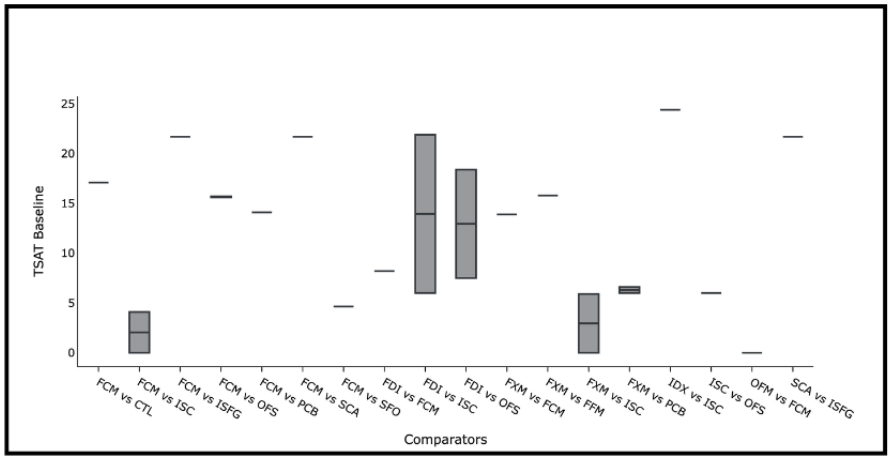
Hb



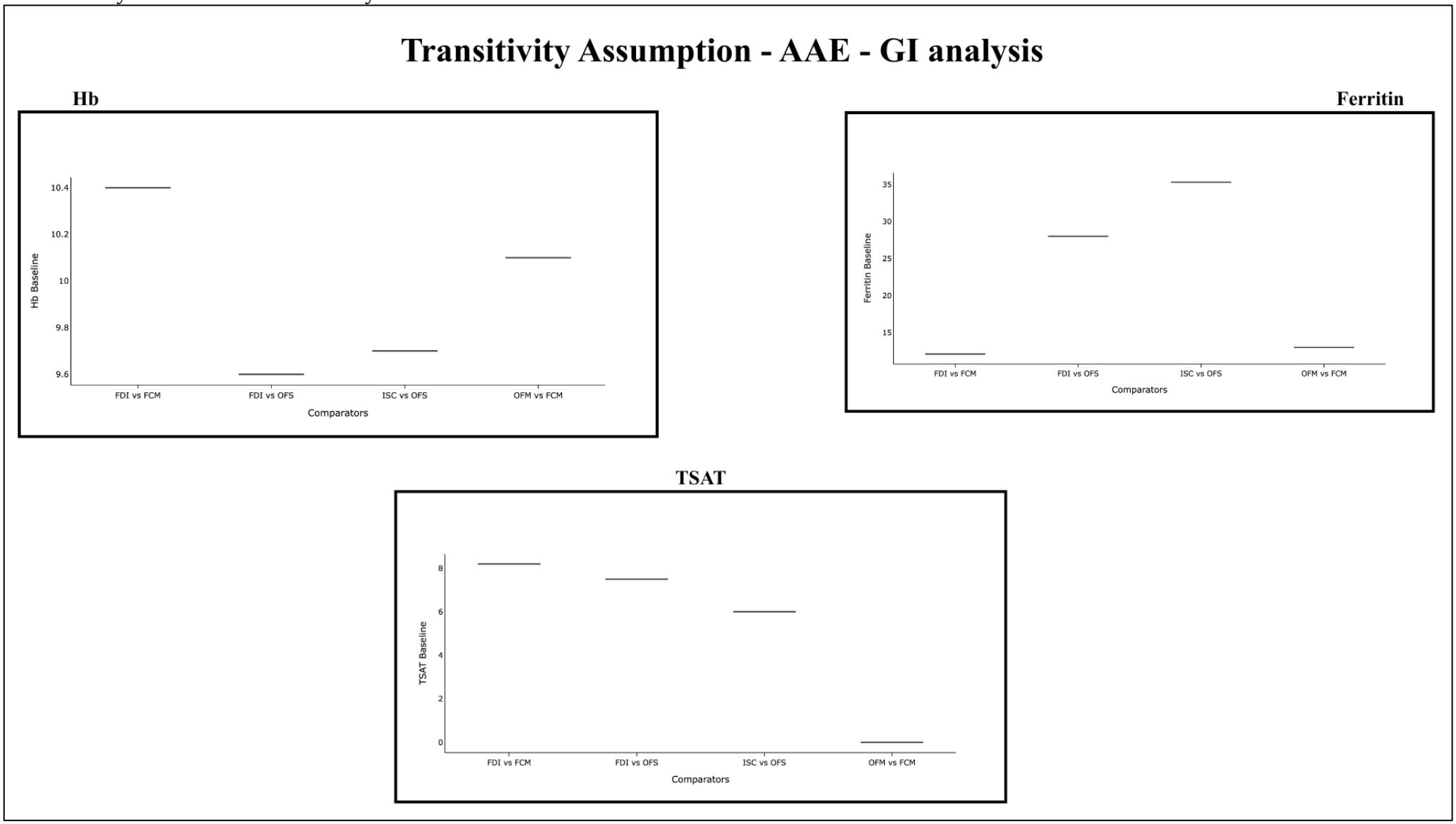
Ferritin



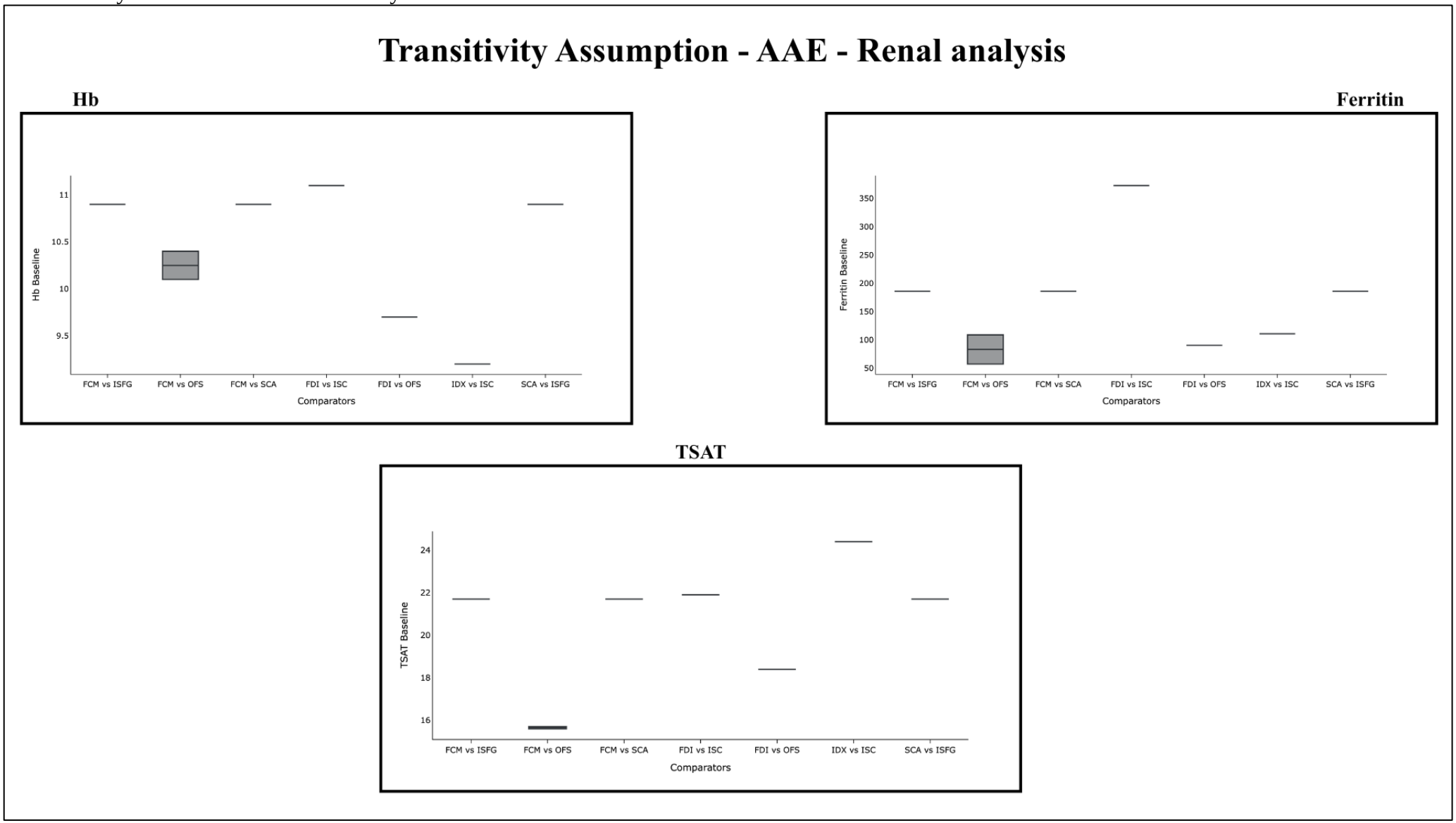
TSAT



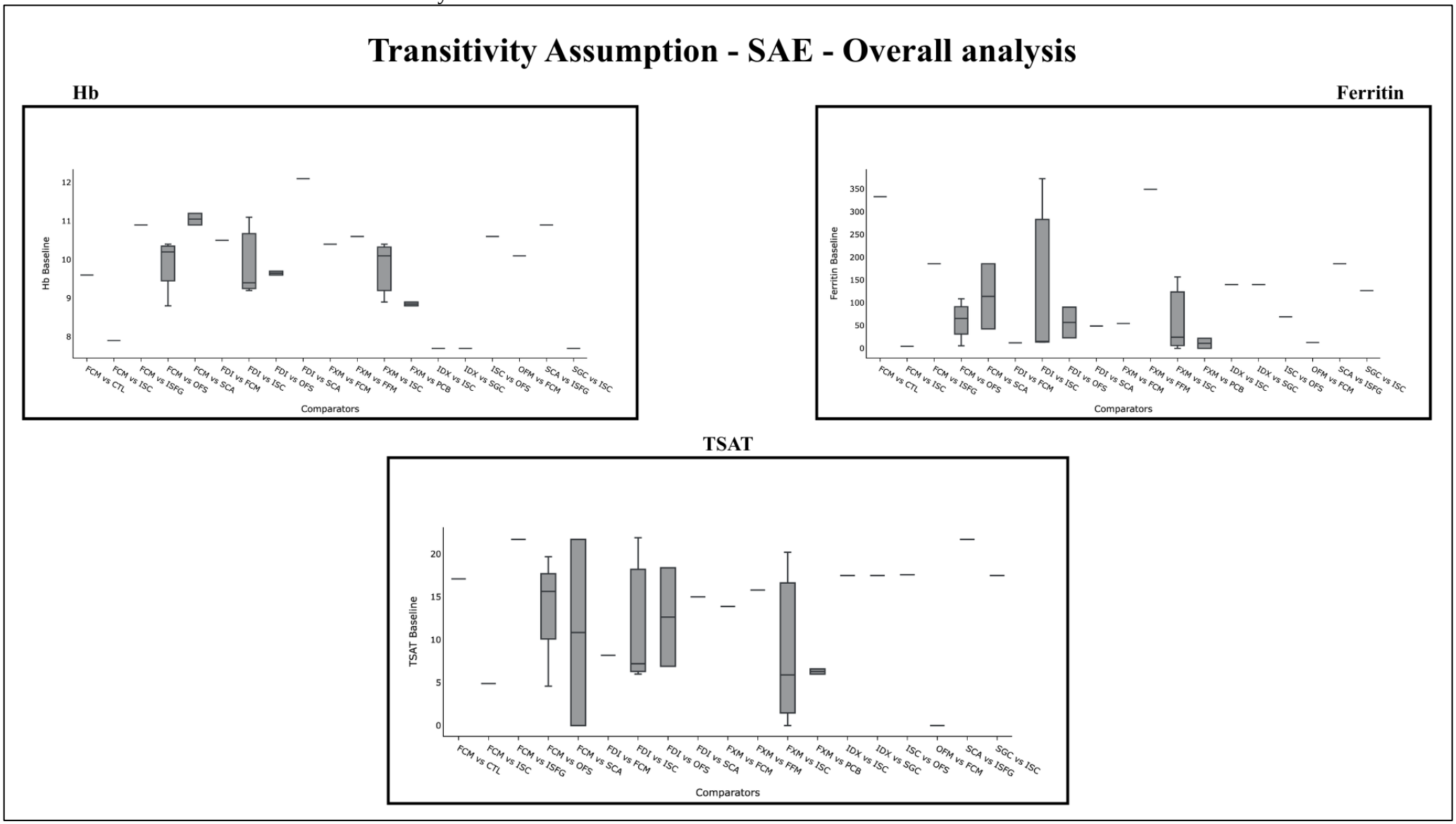
S10.11 – Any Adverse Events – GI analysis.



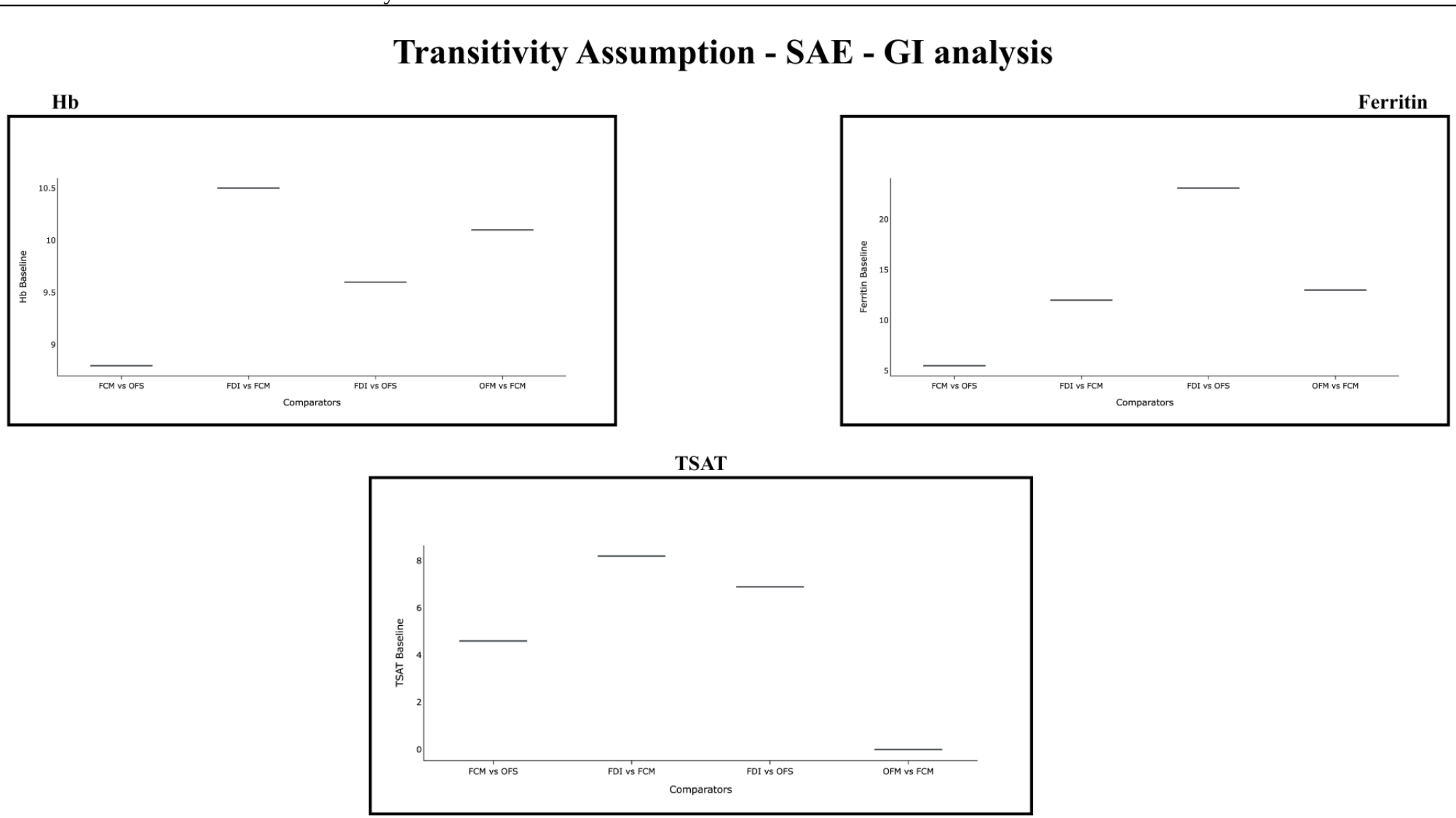
S10.12 – Any Adverse Events - Renal analysis.



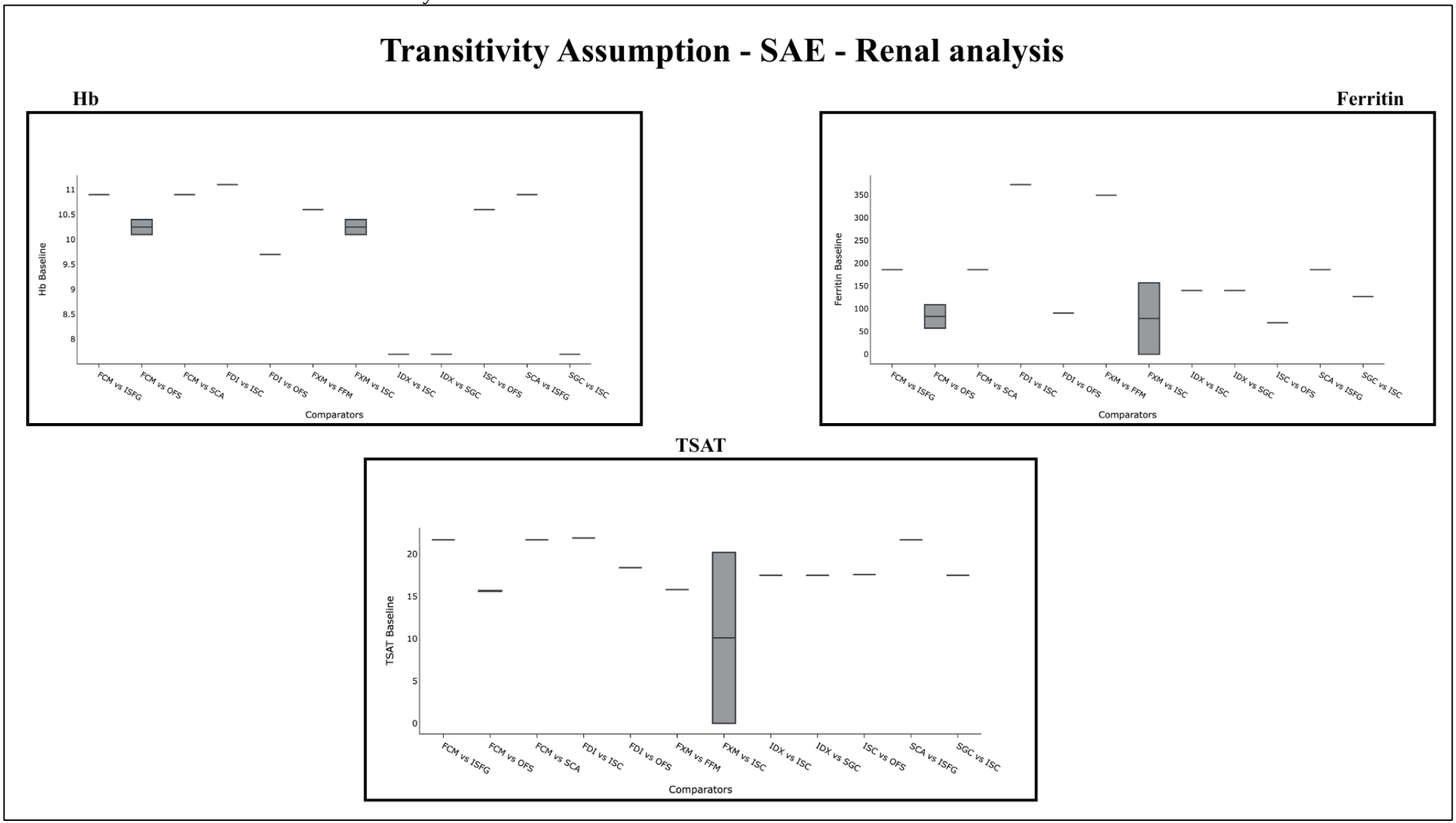
S10.13 – Serious Adverse Events – Overall analysis.



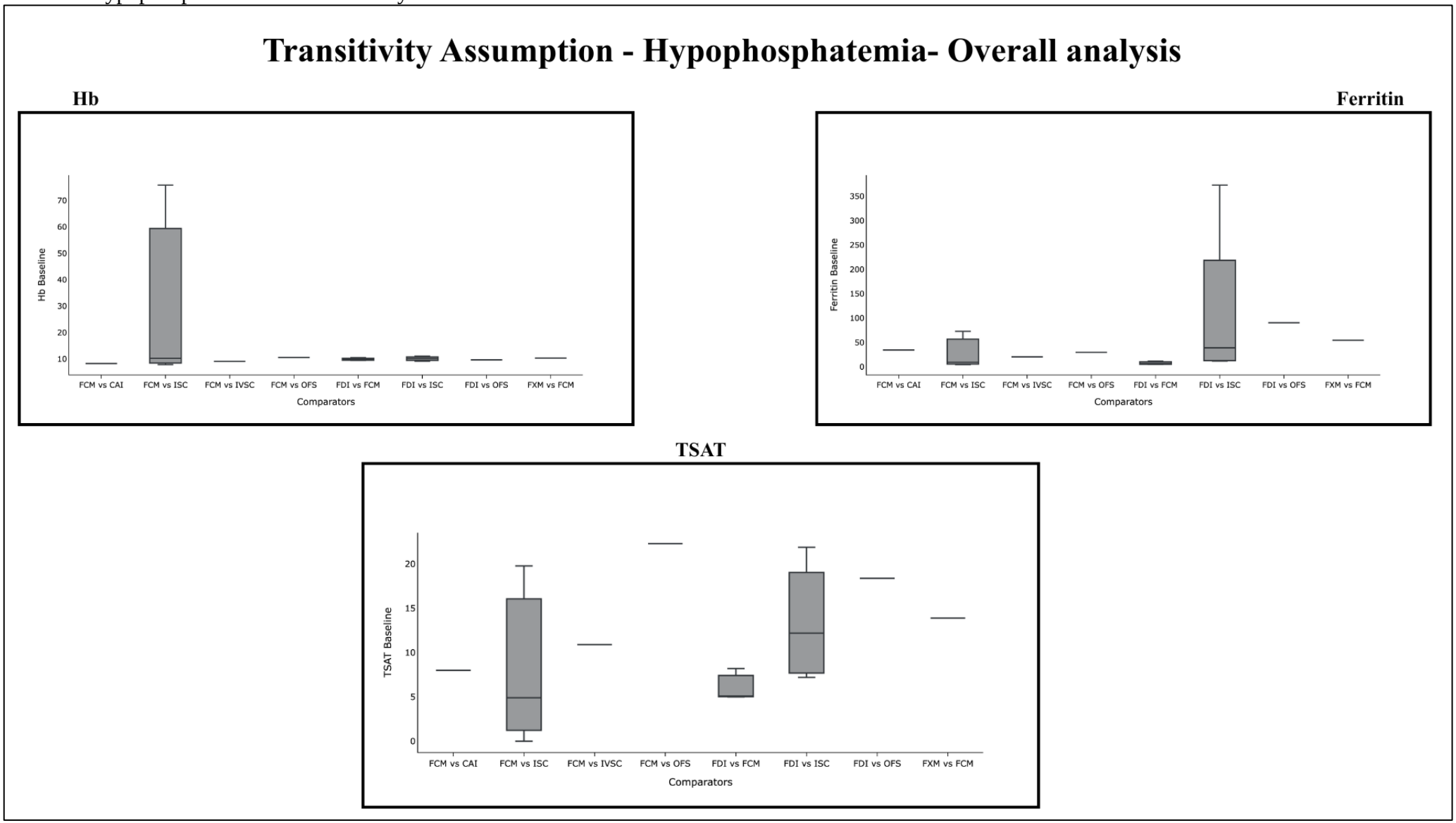
S10.14 – Serious Adverse Events – GI analysis.



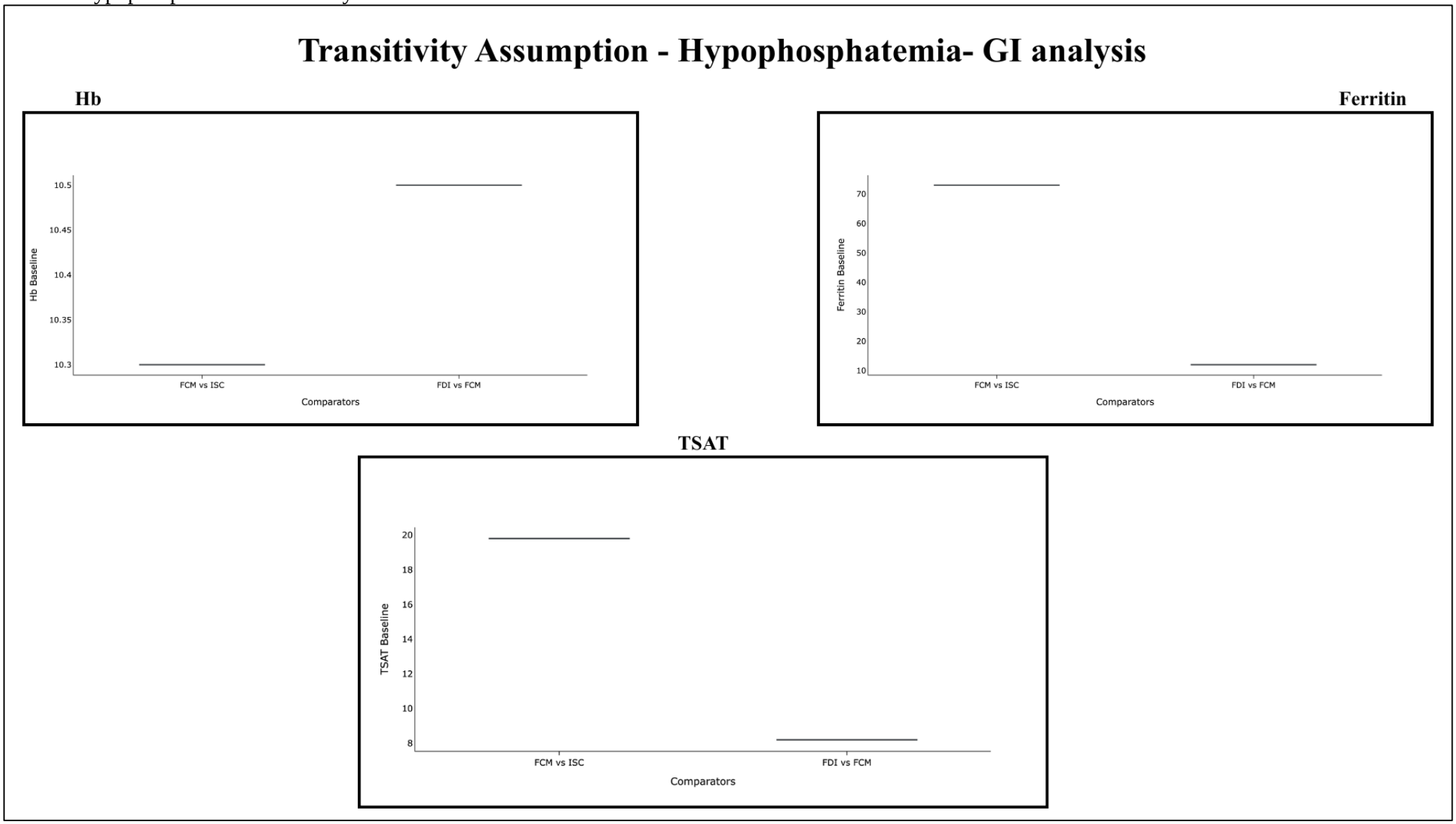
S10.15 – Serious Adverse Events – Renal analysis.



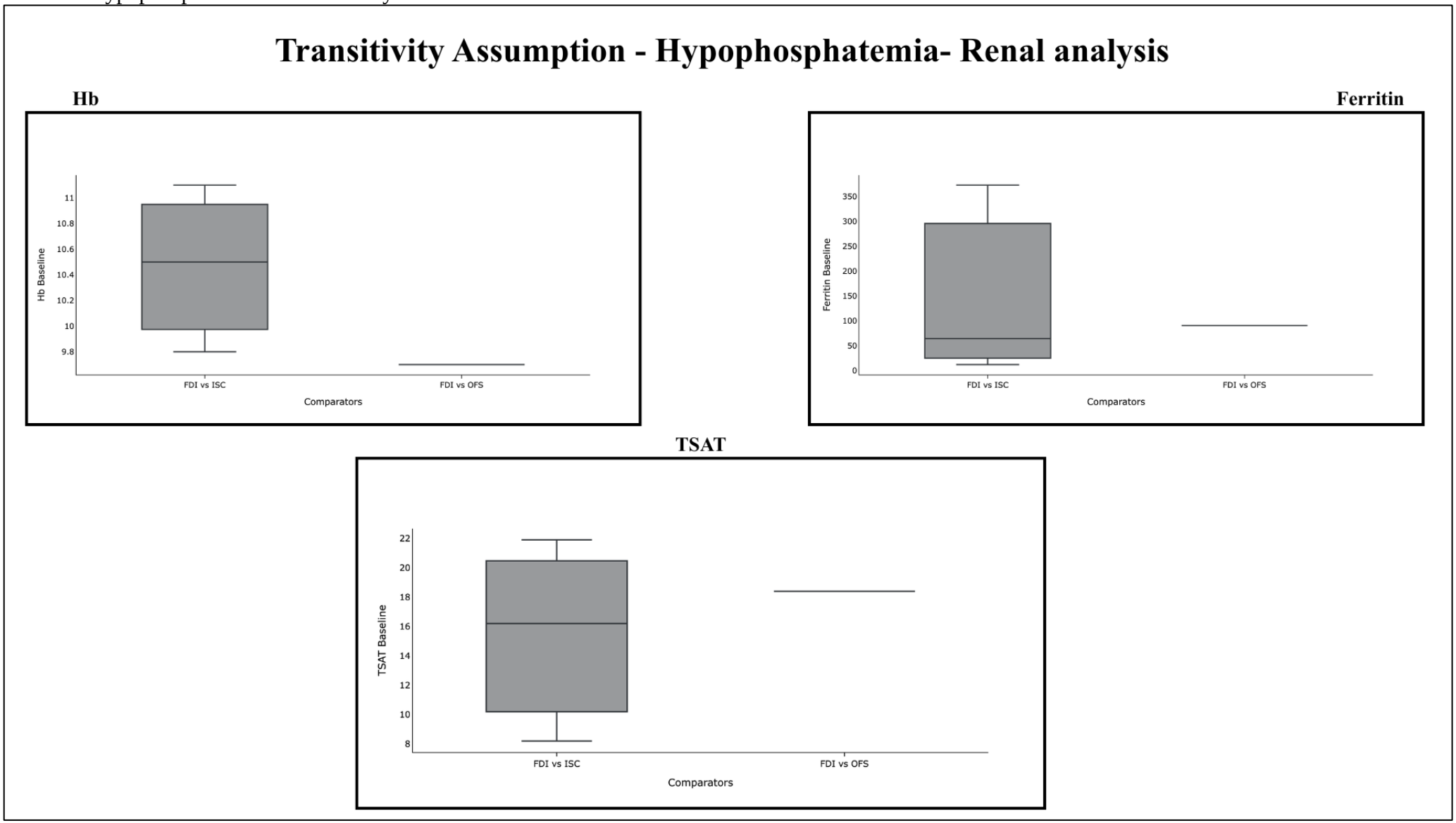
S10.16 – Hypophosphatemia – Overall analysis.



S10.1 – Hypophosphatemia – GI analysis.



S10.16 – Hypophosphatemia – Renal analysis.



Supplement 11 - Assessment of inconsistency

S11.1 – Hemoglobin

1 week			
Comparison	**direct**	**indirect**	**p-value**
FCM vs FDI	1	1.411	0.9172
FCM vs ISC	1.8221	1.291	0.9172
2 week			
FCM vs FDI	1.2438	0.678	0.0587
FCM vs ISC	0.5712	1.644	0.0043*
FCM vs OFS	1.2214	0.916	0.4693
FDI vs ISC	1.3375	0.465	0.0043*
FDI vs OFS	1.0268	1.369	0.4693
3 week			
FCM vs FDI	1.8193	1.58	0.7412
FCM vs OFS	2.2255	2.562	0.7412
FDI vs ISC	2.2255	0.99	0.0424*
FDI vs OFS	0.9048	1.744	0.0926
ISC vs OFS	1.0358	0.461	0.0424*
4 week			
FCM vs ISC	0.6703	1.911	0.1109
FCM vs OFS	1.4918	0.523	0.1109
FDI vs ISC	1.3884	0.487	0.1109
FDI vs OFS	1.0841	3.09	0.1109
5 week			
FDI vs FCM	0.6164	1.052	0.0911
FDI vs ISC	1.4918	0.874	0.0911
FXM vs FCM	0.8187	0.48	0.0911
FXM vs ISC	1.1613	1.982	0.0911
6 week			
FCM vs FDI	1.1052	1.186	0.8997
FCM vs ISC	0.7464	1.617	0.0574
FCM vs OFS	1.8844	0.846	0.0477*
FDI vs ISC	1	1.073	0.8997
ISC vs OFS	1.021	2.274	0.0477*
8 week			
FCM vs ISC	1.0613	2.156	0.2444
FCM vs OFS	1.3499	0.664	0.2444
FDI vs ISC	1.6506	1.121	0.4582
FDI vs OFS	0.9805	1.444	0.4582
ISC vs OFS	0.6703	0.777	0.7876

S11.2 – TSAT

1 week			
Comparison	**direct**	**indirect**	**p-value**
FCM vs FDI	0.02 (0, 0)	117.34 (0.06, 0.06)	0.058
FCM vs OFS	1998.2 (10.44, 10.44)	0.31 (0, 0)	0.058
FDI vs OFS	17.03 (0.07, 0.07)	110482.98 (78.66, 78.66)	0.058
2 week			
FCM vs FDI	215.27 (3.74, 3.74)	254.89 (1.82, 1.82)	0.959
FCM vs FXM	9.97 (0.06, 0.06)	1.94 (0, 0)	0.712
FCM vs ISC	221.41 (0.06, 0.06)	6315.37 (145.84, 145.84)	0.468
FCM vs OFS	2440.6 (3.53, 3.53)	488.24 (3.06, 3.06)	0.703
FDI vs ISC	11.65 (0.75, 0.75)	42.47 (0.21, 0.21)	0.671
FDI vs OFS	8.05 (0.07, 0.07)	1.61 (0.01, 0.01)	0.655
FXM vs ISC	81.45 (0.08, 0.08)	2307.12 (8.98, 8.98)	0.461
FXM vs PCB	4876800.85 (215.49, 215.49)	457.02 (0.57, 0.57)	0.131
ISC vs OFS	0.02 (0, 0)	0.82 (0.01, 0.01)	0.380
ISC vs PCB	3 (0.03, 0.03)	32057.41 (0.49, 0.49)	0.131
3 week			
FCM vs FDI	1225.02 (12.18, 12.18)	1177.46 (1.89, 1.89)	0.992
FCM vs OFS	1998.2 (35.8, 35.8)	2078.91 (2.28, 2.28)	0.992
FFM vs FDI	0 (0, 0)	0 (0, 0)	0.479
FFM vs FXM	0.01 (0, 0)	0 (0, 0)	0.364
FFM vs OFS	0 (0, 0)	0.01 (0, 0)	0.089
FXM vs FDI	0.02 (0, 0)	0.03 (0, 0)	0.880
FXM vs ISC	66.69 (0.19, 0.19)	1.32 (0, 0)	0.364
FXM vs OFS	0 (0, 0)	0.77 (0, 0)	0.082
ISC vs FDI	0 (0, 0)	0.01 (0, 0)	0.424
ISC vs OFS	0.02 (0, 0)	0 (0, 0)	0.110
OFS vs FDI	99.48 (0.06, 0.06)	0.08 (0, 0)	0.108
4 week			
FCM vs ISC	13.46 (0.01, 0.01)	114.43 (1.36, 1.36)	0.608
FCM vs OFS	148.41 (3.97, 3.97)	17.46 (0.01, 0.01)	0.608
FDI vs FSC	270.43 (20.21, 20.21)	16236.95 (478.74, 478.74)	0.067
FDI vs ISC	2.68 (0.84, 0.84)	688.11 (4.27, 4.27)	0.037*
FDI vs OFS	15.86 (0.74, 0.74)	0.99 (0.02, 0.02)	0.278
FSC vs ISC	0 (0, 0)	0.06 (0, 0)	0.221
FSC vs OFS	0 (0, 0)	0.02 (0, 0)	0.181
ISC vs OFS	0.07 (0, 0)	27.7 (0.96, 0.96)	0.017*
5 week			
FCM vs FDI	31.33 (0.4, 0.4)	3.36 (0, 0)	0.662
FCM vs FXM	14.88 (0.06, 0.06)	138.66 (0.03, 0.03)	0.662
FDI vs ISC	33.12 (0.13, 0.13)	3.55 (0, 0)	0.662
FXM vs ISC	7.48 (0.09, 0.09)	69.72 (0.01, 0.01)	0.662
6 week			
FCM vs ISC	9.03 (0.01, 0.01)	9348.44 (197.6, 197.6)	0.082
FCM vs OFS	282.3 (24.52, 24.52)	0.27 (0, 0)	0.082
ISC vs OFS	0.03 (0, 0)	31.28 (0.02, 0.02)	0.082
8 week			
FCM vs ISC	164.02 (0.25, 0.25)	16.88 (0.43, 0.43)	0.551
FCM vs OFS	81.45 (4.91, 4.91)	791.64 (0.78, 0.78)	0.551
FDI vs ISC	1.84 (0.67, 0.67)	17.9 (0.01, 0.01)	0.551
FDI vs OFS	8.89 (1.04, 1.04)	0.91 (0, 0)	0.551

S11.2 – Ferritin

1 week			
Comparison	**direct**	**indirect**	**p-value**
FCM vs FDI	1.877	2.1011	0.116
FCM vs OFS	1.53	1.3706	0.116
FDI vs OFS	7.3	8.171	0.116
2 week			
FCM vs FDI	5.021	0	0.280
FCM vs FXM	7.16	0	0.218
FCM vs ISC	0	9.0994	0.001*
FCM vs OFS	7.5	5.20861	0.158
FDI vs ISC	1.113	3.3805	0.808
FDI vs OFS	3.5	2.55273	0.344
FXM vs ISC	2.28	0	0.218
ISC vs OFS	0	6.4435	0.031*
3 week			
FCM vs FDI	2.864	6.0154	0.248
FCM vs OFS	9.05	4.3085	0.248
FDI vs ISC	1.451	6.2709	0.890
FDI vs OFS	9.762	4.5076	0.338
OFS vs ISC	152.933	0	0.890
4 week			
FCM vs ISC	0	1.5609	0.003*
FCM vs OFS	1.34	0	0.003*
FDI vs ISC	2.26	5.068	0.081
FDI vs OFS	5.309	0	0.081
ISC vs OFS	0	4.76247	0.000*
5 week			
FCM vs FDI	1.083	3.1233	0.088
FCM vs FXM	4.101	0	0.088
FDI vs ISC	1.546	4.4562	0.088
FXM vs ISC	1.177	0	0.088
6 week			
FCM vs ISC	0	1.4765	0.041*
FCM vs OFS	4.82	0	0.041*
ISC vs OFS	0	4.6308	0.041*
8 week			
FCM vs ISC	0	7.2734	0.0008*
FCM vs OFS	2.81	0	0.0008*
FDI vs ISC	11.5133	1.83109	0.021
FDI vs OFS	3.976	0	0.021
ISC vs OFS	0	6.35052	0.0002*

S11.3 – Any Adverse Event

Comparison	direct	indirect	p-value
FCM vs FDI	0.9796	0.989	0.920
FCM vs FXM	1.1291	1.199	0.578
FCM vs ISC	1.1761	1.079	0.455
FCM vs OFS	1.0037	1.028	0.803
FCM vs PCB	1.403	1.296	0.666
FDI vs ISC	1.1099	1.14	0.875
FDI vs OFS	1.0216	1.023	0.991
FXM vs ISC	0.9569	0.993	0.748
FXM vs PCB	1.1284	1.222	0.666
OFS vs ISC	0.8333	1.122	0.367

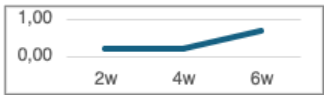
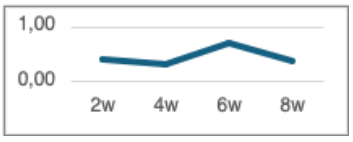
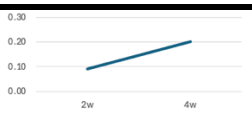
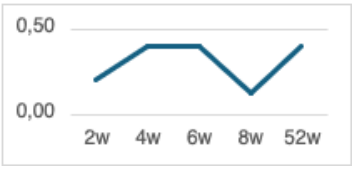
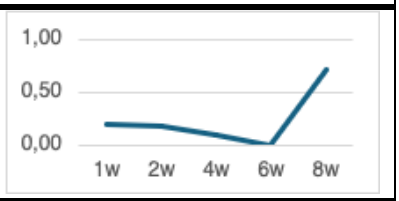
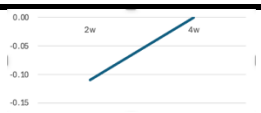
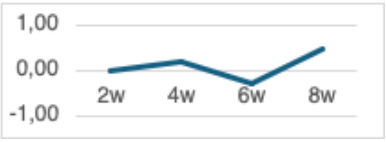
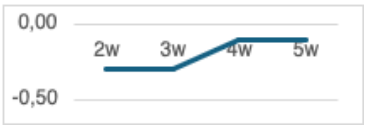
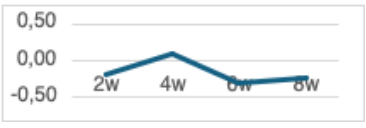
S11.4 – Serious Adverse Event

Comparison	direct	indirect	p-value
FCM vs FDI	1.1755	1.026	0.822
FCM vs FXM	0.9693	1.284	0.364
FCM vs ISC	1.4616	1.138	0.606
FCM vs ISFG	0.3709	2.398	0.006*
FCM vs OFS	1.258	0.79	0.059
FCM vs SCA	0.399	1.317	0.006*
FDI vs ISC	1.0817	1.124	0.953
FDI vs OFS	0.8413	1.836	0.034*
FDI vs SCA	0.9577	0.29	0.006*
FXM vs ISC	0.9822	1.301	0.364
ISFG vs SCA	1.0759	21.81	0.006*
OFS vs ISC	1.0497	0.903	0.587

S11.5 – Hypophosphatemia

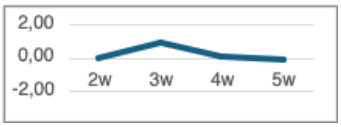
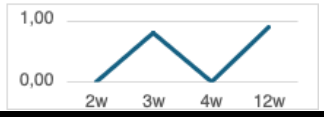
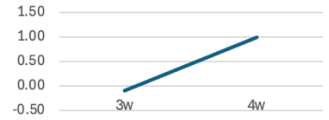
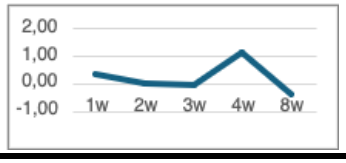
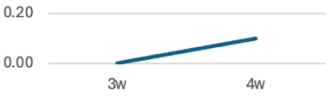
Comparison	direct	indirect	p-value
FCM vs FDI	8.1688	2.4029	0.260
FCM vs ISC	5.301	22.111	0.200
FCM vs OFS	19.5396	9.8697	0.78**1**
FDI vs ISC	2.6749	0.6413	0.200
FDI vs OFS	2.0526	4.0637	0.781

Supplement 12 - Results to Hb - Subgroup Analysis: Renal

Intravenous Iron Agents	Comparator	Timepoint (Weeks)	Estimatives	MD	95% CI	Certainly of Evidence	TREND
FCM	FDI	2w	NMA	0,20	(-0.08, 0.48)	Moderate	
	FDI	4w	NMA	0,20	(-0.02, 0.42)	Moderate	
	FDI	6w	NMA	0,70	(0.23, 1.17)	Moderate	
	ISC	2w	NMA	0,39	(0.09, 0.70)	Low	
	ISC	4w	NMA	0,30	(0.03, 0.57)	Very Low	
	ISC	6w	NMA	0,70	(0.36, 1.04)	Moderate	
	ISC	8w	NMA	0,36	(0.02, 0.70)	Low	
	FXM	2w	NMA	0,09	(-0.23, 0.42)	Low	
	FXM	4w	NMA	0,20	(-0.07, 0.47)	Very Low	
	SGC	6w	NMA	0,20	(-0.22, 0.62)	Very Low	-
	OFS	2w	NMA	0,20	(0.00, 0.40)	Low	
	OFS	4w	NMA	0,40	(0.23, 0.57)	Low	
	OFS	6w	NMA	0,40	(0.22, 0.58)	Very Low	
	OFS	8w	NMA	0,12	(-0.24, 0.47)	Low	
	OFS	52w	Direct	0,40	(-2.97, 3.77)	Low	
FDI	ISC	1w	Direct	0,20	(0.08, 0.32)	Moderate	
	ISC	2w	NMA	0,19	(0.09, 0.30)	Low	
	ISC	4w	NMA	0,10	(-0.06, 0.26)	Very Low	
	ISC	6w	NMA	0,00	(-0.32, 0.32)	Moderate	
	ISC	8w	NMA	0,72	(0.46, 0.99)	Low	
	FXM	2w	NMA	-0,11	(-0.27, 0.05)	Low	
	FXM	4w	NMA	0,00	(-0.16, 0.16)	Very Low	
	SGC	6w	NMA	-0,50	(-1.08, 0.08)	Very Low	-
	OFS	2w	NMA	0,00	(-0.20, 0.20)	Moderate	
	OFS	4w	NMA	0,20	(0.06, 0.34)	Moderate	
	OFS	6w	NMA	-0,30	(-0.73, 0.13)	Low	
	OFS	8w	NMA	0,48	(0.13, 0.83)	Moderate	
ISC	FXM	2w	NMA	-0,30	(-0.42, -0.18)	Very Low	
	FXM	3w	NMA	-0,30	(-0.33, -0.27)	Very Low	
	FXM	4w	NMA	-0,10	(-0.13, -0.07)	Very Low	
	FXM	5w	NMA	-0,10	(-0.13, -0.07)	Very Low	
	IDX	3w	NMA	0,20	(-0.19, 0.59)	Very Low	-
	SGC	6w	NMA	-0,50	(-0.98, -0.02)	Moderate	-
	OFS	2w	NMA	-0,19	(-0.42, 0.03)	Low	
	OFS	4w	NMA	0,10	(-0.11, 0.31)	Very Low	
	OFS	6w	NMA	-0,30	(-0.59, -0.01)	Low	
	OFS	8w	NMA	-0,25	(-0.57, 0.08)	Moderate	
FXM	IDX	3w	NMA	0,50	(0.11, 0.89)	Very Low	-
	OFS	2w	NMA	0,11	(-0.15, 0.36)	Very Low	
	OFS	4w	NMA	0,20	(-0.01, 0.41)	Very Low	

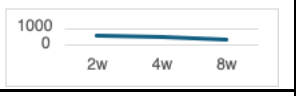
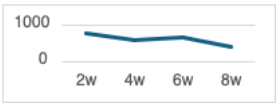
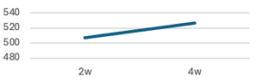
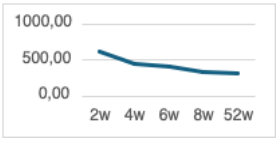
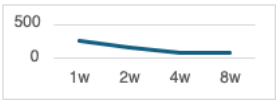
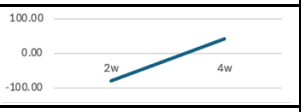
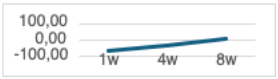
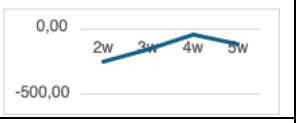
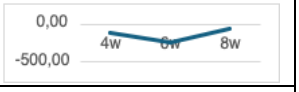
Legend: FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, OFS - Oral Ferrous Sulfate, SGC – Sodium ferric gluconate complex.

Supplement 13 - Results to Hb - Subgroup Analysis: Gastrointestinal

Intravenous Iron Agents	Comparator	Timepoint (Weeks)	Estimatives	MD	95% CI	Certainly of Evidence	TREND
FCM	FDI	2w	Network	0,00	(-0.62, 0.62)	Moderate	
		3w	Network	0,90	(0.19, 1.61)	Moderate	
		4w	Network	0,10	(-0.48, 0.68)	Moderate	
		5w	Direct	-0,10	(-0,67, 0,47)	Low	
	ISC	2w	Network	0,80	(0.29, 1.31)	Low	
		3w	Network	1,10	(0.39, 1.81)	Low	
	OFS	2w	Network	0,00	(-0.78, 0.78)	Low	
		3w	Network	0,80	(0.30, 1.30)	Moderate	
		4w	Network	1,20	(0.50, 1.90)	Moderate	
		12w	Network	0,90	(-4.24, 6.04)	Low	
FDI	ISC	3w	Network	-0,10	(-0.61, 0.41)	Very Low	
		4w	Network	1,00	(0.08, 1.92)	Low	
	OFS	1w	Direct	0,30	(-0,02, 0,42)	Moderate	
		2w	Network	0,00	(-0,47, 0,47)	Moderate	
		3w	Network	-0,10	(-0.60, 0.40)	Very Low	
		4w	Network	1,10	(0.19, 2.01)	High	
		8w	Direct	-0,39	(-0.45, -0.33)	Moderate	
ISC	OFS	3w	Network	0,00	(-0.09, 0.09)	Very Low	
		4w	Network	0,10	(-0.02, 0.22)	Very Low	

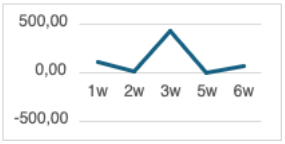
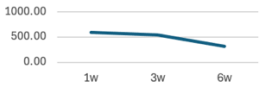
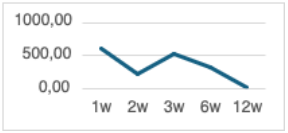
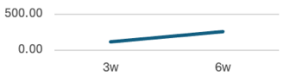
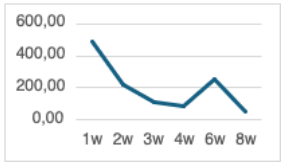
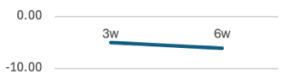
Legend: FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, OFS - Oral Ferrous Sulfate, SGC – Sodium ferric gluconate complex.

Supplement 14 - Results to Ferritin - Subgroup Analysis: Renal

Intravenous Iron Agents	Comparator	Timepoint (Weeks)	Estimative	MD	95% CI	Certainly of Evidence	TREND
FCM	FDI	2w	Netwrok	587,15	(116.89, 1,057.42)	Moderate	
		4w	Network	485,03	(134.50, 835.57)	Low	
		8w	Network	321,02	(-34.52, 676.57)	Very low	
	ISC	2w	Netwrok	754,37	(288.22, 1,222.52)	Low	
		4w	Network	571,06	(223.26, 918.86)	Low	
		6w	Network	657,45	(413.88, 901.02)	Very low	
		8w	Network	396,57	(42.96, 750.18)	Very low	
	FXM	2w	Netwrok	507,17	(-4.14, 1,018.49)	Low	
		4w	Network	526,66	(130.83, 922.49)	Very low	
	SGC	6w	Network	235,30	(-21.19, 491.79)	Very low	-
	OFS	2w	Netwrok	612,20	(175.44, 1,048.96)	Moderate	
		4w	Network	451,6	(135.87, 767.33)	Low	
		6w	Network	411,40	(171.54, 651.26)	Very low	
		8w	Network	328,00	(26.79, 629.21)	Very low	
		52w	Direct	314,00	(288.91, 339.09)	Moderate	
FDI	ISC	1w	Network	254,37	(125.15, 358.58)	Low	
		2w	Netwrok	167,22	(58.30, 276.14)	Low	
		4w	Network	86,02	(-11.57, 183.62)	Very low	
		8w	Network	75,55	(-74.67, 225.77)	Very low	
	FXM	2w	Netwrok	-79,98	(-316.64, 156.69)	Very low	
		4w	Network	41,62	(-171.08, 254.32)	Very low	
	OFS	1w	Network	-66,63	(-380.92, 247.66)	Low	
		4w	Network	-33,43	(-185.72, 118.69)	Low	
		8w	Network	6,98	(-181.93, 195.88)	Very low	
ISC	FXM	2w	Netwrok	-247,20	(-457.31, -37.09)	Low	
		3w	Network	-156,50	(-246.12, -66,88)	Very low	
		4w	Network	-44,40	(-233.39, 144.59)	Very low	
		5w	Network	-122,20	(-194.84, -49.56)	Low	
	IDX	3w	Network	-2,70	(-55.58, 50.18)	Very low	-
	SGC	6w	Network	-176,10	(-266.96, -85.24)	Very low	-
	OFS	4w	Network	-119,46	(-265.34, 26.43)	Very low	
		6w	Network	-246,05	(-288.41, 203.69)	Low	
		8w	Network	-68,57	(-253.80, 116.66)	Very low	
FXM	IDX	3w	Network	153,80	(49.74, 257.86)	Very low	-
	OFS	4w	Network	-75,06	(-313.80, 163.69)	Very low	-
SGC	OFS	6w	Network	176,10	(85.24, 266.96)	Very low	-

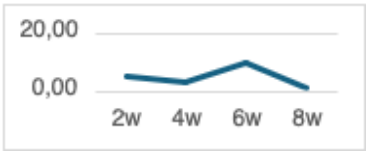
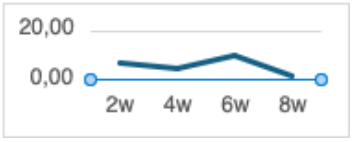
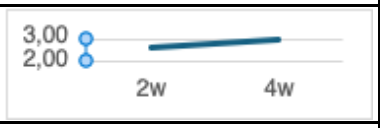
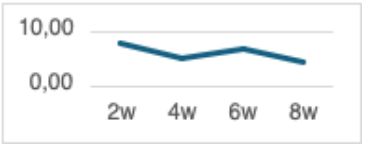
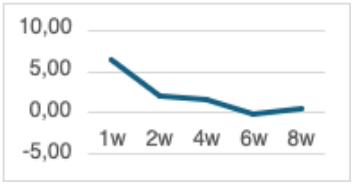
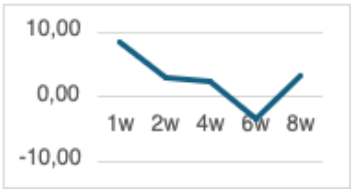
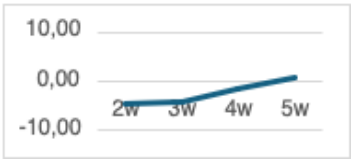
Legend: FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, OFS - Oral Ferrous Sulfate, SGC – Sodium ferric gluconate complex.

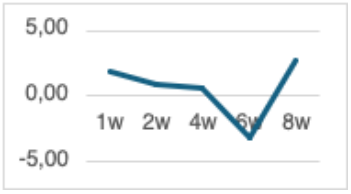
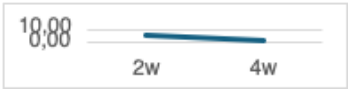
Supplement 15 - Results to Ferritin - Subgroup Analysis: GI

Intravenous Iron Agents	Comparator	Timepoint (Weeks)	Estimative	MD	95% CI	Certainly of Evidence	TREND
FCM	FDI	1w	Network	109,40	(26.83, 191.97)	Moderate	
		2w	Netwrok	7,40	(-38.07, 52.87)	Low	
		3w	Network	423,60	(396.03, 451.17)	Moderate	
		5w	Direct	-5,90	(-33.63, 21.83)	Moderate	
		6w	Network	59,10	(-17.20, 135.40)	Low	
	ISC	1w	Network	599,10	(598.15, 600.05)	Moderate	
		3w	Network	539,10	(537.76, 540.44)	Very Low	
		6w	Network	321,20	(320.07, 322.33)	Very Low	
	OFS	1w	Network	599,10	(598.15, 600.05)	Moderate	
		2w	Netwrok	226,20	(179.04, 273.36)	Moderate	
		3w	Network	534,10	(582.80, 535.40)	Moderate	
		6w	Network	315,10	(314.01, 316.19)	Low	
		12w	Network	16,50	(-3.21, 36.21)	Low	
FDI	ISC	3w	Network	115,50	(87.95, 143.05)	Very Low	
		6w	Network	262,10	(185.79, 338.41)	Moderate	
	OFS	1w	Network	489,70	(407.13, 572.27)	Moderate	
		2w	Netwrok	218,80	(206.29, 231.31)	Moderate	
		3w	Network	110,50	(82.96, 138.04)	Moderate	
		4w	Network	86,50	(68.64, 104.36)	Moderate	
		6w	Network	256,00	(178.69, 332.31)	Low	
		8w	Direct	49,40	(38.58, 60.22)	Moderate	
ISC	OFS	3w	Network	-5,00	(-5.33, -4.67)	Moderate	
		6w	Network	-6,10	(-6.40, -5.80)	Moderate	

Legend: FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, OFS - Oral Ferrous Sulfate, SGC – Sodium ferric gluconate complex.

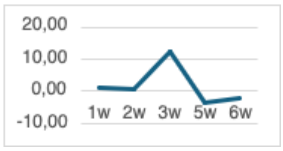
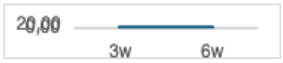
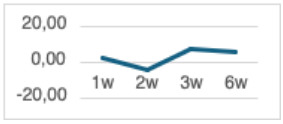
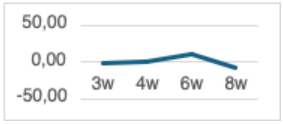
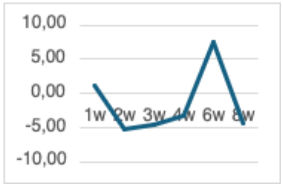
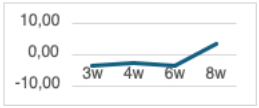
Supplement 16 - Results to Transferrin Saturation (TSAT) - Subgroup Analysis: Renal

Intravenous Iron Agents	Comparator	Timepoint (Weeks)	Estimative	MD	95% CI	Certainly of Evidence	TREND
FCM	FDI	2w	Network	4,99	(-1.66, 11.63)	Moderate	
		4w	Network	2,76	(-2.84, 8.37)	Low	
		6w	Network	9,90	(4.53, 15.27)	Moderate	
		8w	Network	1,20	(-1.91, 4.31)	Low	
	ISC	2w	Network	6,97	(0.28, 13.66)	High	
		4w	Network	4,36	(-1.31, 10.04)	Low	
		6w	Network	9,80	(4.44, 15.16)	Moderate	
		8w	Network	1,67	(-1.55, 4.89)	Very Low	
	FXM	2w	Network	2,57	(-6.41, 11.55)	Moderate	
		4w	Network	2,96	(-5.00, 10.92)	Very Low	
	SGC	6w	Network	1,20	(-4.13, 6.53)	Very Low	-
	OFS	2w	Network	7,80	(2.30, 13.30)	Moderate	
		4w	Network	5,00	(0.57, 9.43)	Moderate	
		6w	Network	6,60	(2.76, 10.44)	Moderate	
		8w	Network	4,40	(1.93, 6.87)	Low	
FDI	ISC	1w	Network	6,54	(1.17, 11.91)	Low	
		2w	Network	1,98	(-0.08, 4.05)	Very Low	
		4w	Network	1,60	(-0.82, 4.02)	Very Low	
		6w	Network	-0,10	(-0.42, 0.22)	Very Low	
		8w	Network	0,47	(-0.40, 1.34)	Low	
	FXM	2w	Network	-2,42	(-8.75, 3.92)	Moderate	
		4w	Network	0,20	(-5.89, 6.29)	Very Low	
	SGC	6w	Network	-8,70	(-13.96, -3.44)	Very Low	-
	OFS	1w	Network	8,40	(-0.36, 17.16)	Low	
		2w	Network	2,81	(-0.91, 6.54)	Low	
		4w	Network	2,24	(-1.20, 5.67)	Moderate	
		6w	Network	-3,30	(-7.05, 0.45)	Very Low	
		8w	Network	3,20	(1.32, 5.08)	Moderate	
ISC	FXM	2w	Network	-4,40	(-10.39, 1.59)	Low	
		3w	Network	-4,20	(-8.49, 0.09)	Low	
		4w	Network	-1,40	(-6.99, 4.19)	Very Low	
		5w	Network	0,60	(-3.90, 5.10)	Low	
	IDX	3w	Network	-0,70	(-4.48, 3.08)	Very Low	-
	SGC	6w	Network	-8,60	(-13.85, -3.35)	Very Low	-

	OFS	1w	Network	1,86	(-8.41, 12.14)	Very Low	
		2w	Network	0,83	(-2.98, 4.64)	Low	
		4w	Network	0,64	(-2.91, 4.19)	Low	
		6w	Network	-3,20	(-6.93, 0.53)	Very Low	
		8w	Network	2,73	(0.66, 4.80)	Low	
FXM	**IDX**	3w	Network	3,50	(-2.22, 9.22)	Low	-
	OFS	2w	Network	5,23	(-1.87, 12.33)	Moderate	
		4w	Network	2,04	(-4.58, 8.66)	Very Low	
SGC	**OFS**	6w	Network	5,40	(1.71, 9.09)	Very Low	-

Legend: FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, OFS - Oral Ferrous Sulfate, SGC – Sodium ferric gluconate complex.

Supplement 17- Results to Transferrin Saturation (TSAT) - Subgroup Analysis: GI

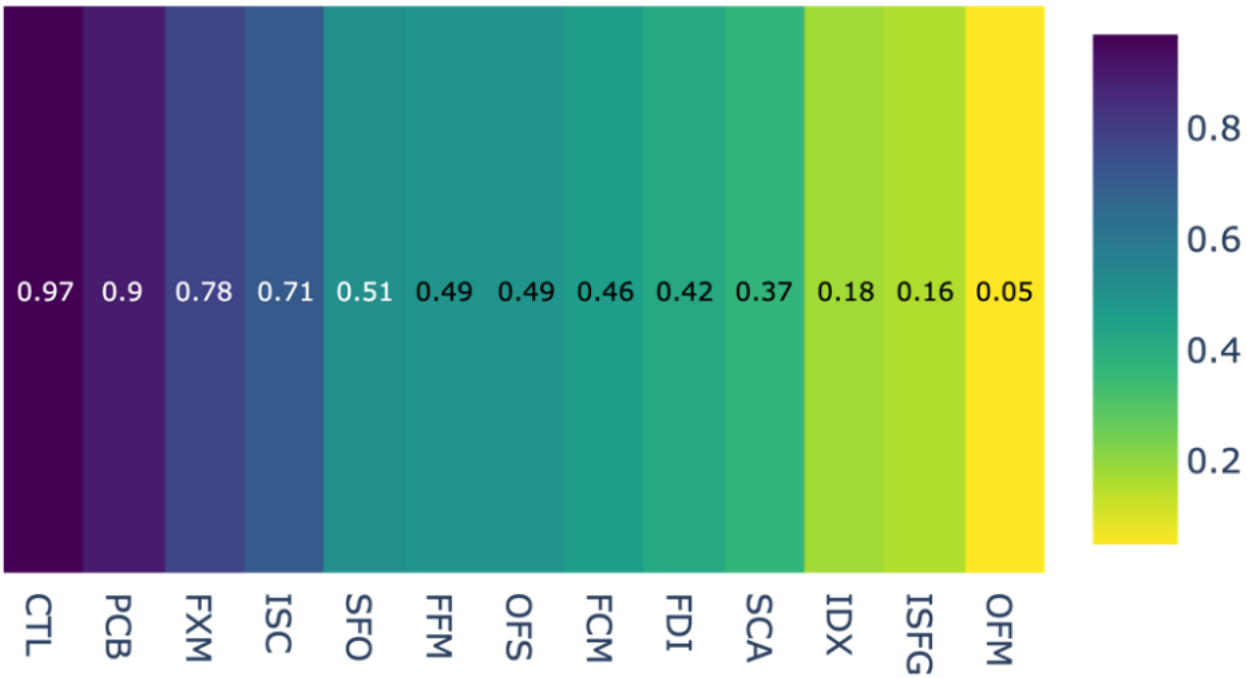
Intravenous Iron Agents	Comparator	Timepoint (Weeks)	Estimative	MD	95% CI	Certainly of Evidence	TREND
FCM	FDI	1w	Network	1,12	(-14.90. 17.13)	Low	
		2w	Network	0,70	(-4.42, 5.82)	Low	
		3w	Network	12,20	(6.01, 18.39)	Moderate	
		5w	Network	-3,40	(-9.02, 2.22)	Moderate	
		6w	Network	-2,10	(-9.86, 5.66)	Low	
	ISC	3w	Network	11,40	(9.85, 12.95)	Moderate	
		6w	Network	8,80	(7.68, 9.92)	Very Low	
	OFS	1w	Network	2,28	(-13.30, 17.86)	Very Low	
		2w	Network	-4,60	(-12.80, 3.60)	Low	
		3w	Network	7,60	(7.10, 8.10)	Moderate	
		6w	Network	5,30	(4.82, 5.78)	Very Low	
FDI	ISC	3w	Network	-0,80	(-7.14, 5.54)	Low	
		4w	Network	-0,70	(-7.61, 6.21)	Very Low	
		6w	Network	10,90	(3.06, 18.74)	Low	
		8w	Network	-7,60	(-13.30, -1.90)	Low	
	OFS	1w	Network	1,16	(-14.88, 17.21)	Very Low	
		2w	Network	-5,30	(-11.71, 1.11)	Low	
		3w	Network	-4,60	(-10.77, 1.57)	Moderate	
		4w	Network	-3,30	(-9.14, 2.54)	Moderate	
		6w	Network	7,40	(-0.38, 15.18)	Very Low	
		8w	Network	-4,30	(-9.98, 1.38)	Low	
ISC	OFS	3w	Network	-3,80	(-5.26, -2.34)	Moderate	
		4w	Network	-2,60	(-6.30, 1.10)	Moderate	
		6w	Network	-3,50	(-4.51, -2.49)	Very Low	
		8w	Network	3,30	(2.85, 3.75)	Low	

Legend: FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, OFS - Oral Ferrous Sulfate, SGC – Sodium ferric gluconate complex.

Supplement 18 - Results to Any Adverse Event - Overall Analysis

Intravenous agent	Comparator	Estimative	MD	95% CI	Certainty of Evidence
FCM	FDI	Network	0.98	(0.90, 1.08)	Low
	ISC	Network	1.12	(1.00, 1.25)	Low
	FXM	Network	**1.16**	**(1.04, 1.28)**	Moderate
	IDX	Network	0.60	(0.22, 1.62)	Low
	OFS	Network	1.01	(0.95, 1.07)	Low
FDI	ISC	Network	1.13	(0.99, 1.30)	Low
	FXM	Network	**1.17**	**(1.03, 1.34)**	Low
	IDX	Network	0.61	(0.23, 1.65)	Low
	OFS	Network	1.02	(0.93, 1.12)	Low
ISC	FXM	Network	1.04	(0.94, 1.14)	Low
	IDX	Network	0.54	(0.20, 1.44)	Low
	OFS	Network	0.9	(0.80, 1.02)	Low
FXM	IDX	Network	0.52	(0.19, 1.40)	Low
	OFS	Network	**0.87**	**(0.77, 0.98)**	Low
IDX	OFS	Network	1.67	(0.62, 4.51)	Low

Ranking



Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

League Table – Any adverse event

Intravenous agent	CTL	FCM	FDI	FFM	FXM	IDX	ISC	ISFG	OFM	OFS	PCB	SCA	SFO
CTL	CTL	0.15 (0.02, 1.02)	.	.	.	.	.	.	.	.	.	.	.
FCM	0.15 (0.02, 1.02)	FCM	0.98 (0.85, 1.13)	.	1.13 (0.99, 1.29)	.	1.18 (0.99, 1.40)	0.77 (0.58, 1.01)	0.60 (0.45, 0.80)	1.00 (0.94, 1.07)	1.40 (1.04, 1.90)	0.92 (0.71, 1.20)	1.01 (0.81, 1.27)
FDI	0.14 (0.02, 1.00)	0.98 (0.90, 1.08)	FDI	.	.	.	1.11 (0.82, 1.50)	.	.	1.02 (0.90, 1.16)	.	.	.
FFM	0.15 (0.02, 1.04)	1.00 (0.76, 1.32)	1.02 (0.76, 1.36)	FFM	1.15 (0.89, 1.49)	.	.	.	.	.	.	.	.
FXM	0.17 (0.02, 1.18)	1.16 (1.04, 1.28)	1.17 (1.03, 1.34)	1.15 (0.89, 1.49)	FXM	.	0.96 (0.86, 1.07)	.	.	.	1.13 (0.96, 1.33)	.	.
IDX	0.09 (0.01, 0.78)	0.60 (0.22, 1.62)	0.61 (0.23, 1.65)	0.60 (0.22, 1.67)	0.52 (0.19, 1.40)	IDX	1.85 (0.69, 4.96)	.	.	.	.	.	.
ISC	0.16 (0.02, 1.14)	1.12 (1.00, 1.25)	1.13 (0.99, 1.30)	1.11 (0.85, 1.46)	0.97 (0.88, 1.06)	1.85 (0.69, 4.96)	ISC	.	.	1.20 (0.64, 2.26)	.	.	.
ISFG	0.11 (0.02, 0.80)	0.77 (0.58, 1.01)	0.78 (0.58, 1.04)	0.77 (0.52, 1.13)	0.66 (0.49, 0.89)	1.28 (0.46, 3.57)	0.69 (0.51, 0.93)	ISFG	.	.	.	1.20 (0.92, 1.57)	.
OFM	0.09 (0.01, 0.63)	0.60 (0.45, 0.80)	0.61 (0.45, 0.83)	0.60 (0.40, 0.89)	0.52 (0.38, 0.71)	1.00 (0.36, 2.80)	0.54 (0.40, 0.73)	0.78 (0.53, 1.17)	OFM	.	.	.	.
OFS	0.15 (0.02, 1.03)	1.01 (0.95, 1.07)	1.02 (0.93, 1.12)	1.00 (0.76, 1.33)	0.87 (0.77, 0.98)	1.67 (0.62, 4.51)	0.90 (0.80, 1.02)	1.31 (0.99, 1.74)	1.67 (1.25, 2.24)	OFS	.	.	.
PCB	0.19 (0.03, 1.36)	1.33 (1.12, 1.57)	1.35 (1.12, 1.63)	1.32 (0.98, 1.78)	1.15 (0.99, 1.33)	2.20 (0.81, 5.99)	1.19 (1.00, 1.41)	1.73 (1.25, 2.38)	2.20 (1.58, 3.07)	1.32 (1.11, 1.57)	PCB	.	.
SCA	0.13 (0.02, 0.96)	0.92 (0.71, 1.20)	0.94 (0.71, 1.24)	0.92 (0.63, 1.35)	0.80 (0.60, 1.06)	1.53 (0.55, 4.28)	0.83 (0.62, 1.10)	1.20 (0.92, 1.57)	1.53 (1.04, 2.26)	0.92 (0.70, 1.20)	0.70 (0.51, 0.95)	SCA	.
SFO	0.15 (0.02, 1.05)	1.01 (0.81, 1.27)	1.03 (0.81, 1.31)	1.01 (0.71, 1.44)	0.88 (0.69, 1.12)	1.69 (0.61, 4.65)	0.91 (0.71, 1.17)	1.32 (0.93, 1.88)	1.69 (1.17, 2.42)	1.01 (0.80, 1.27)	0.76 (0.58, 1.01)	1.10 (0.78, 1.55)	SFO

Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

Supplement 19 - Results to Any Adverse Event - Renal Analysis

Intravenous agent	Comparator	Estimative	MD	95% CI	Certainty of Evidence
FCM	FDI	Network	0.96	(0.53, 1,74)	Very Low
	ISC	Network	0.85	(0.47, 1.66)	Very Low
	IDX	Network	0.46	(0.12, 1.82)	Very Low
	OFS	Network	0.89	(0.64, 1.23)	Very Low
FDI	ISC	Network	0.88	(0.47, 1.66)	Very Low
	IDX	Network	0.48	(0.14, 1.65)	Very Low
	OFS	Network	0.92	(0.56, 1.51)	Very Low
ISC	IDX	Network	0.54	(0.18, 1.57)	Very Low
	OFS	Network	1.04	(0.47, 2.31)	Very Low
IDX	OFS	Network	1.93	(0.51, 7.33)	Very Low

Ranking - Any Adverse Event - Renal subgroup

Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

League Table – Any adverse event – Renal subgroup

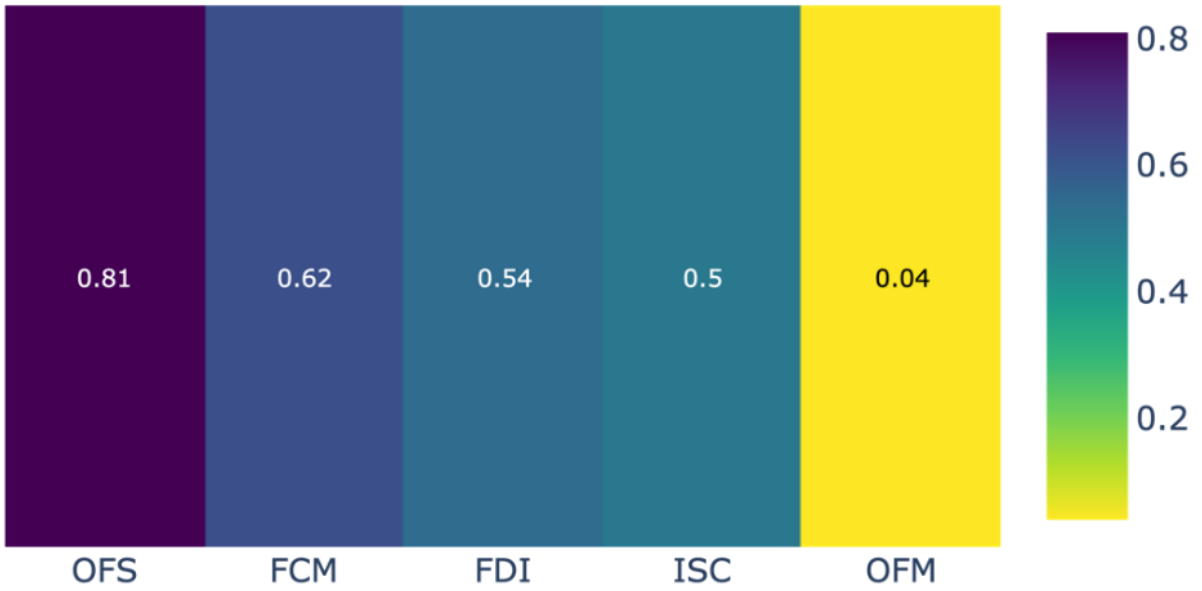
Intravenous agent	FCM	FDI	IDX	ISC	ISFG	OFS	SCA
FCM	FCM	.	.	.	0.77 (0.46,1.27)	0.89 (0.64,1.23)	0.92 (0.56,1.52)
FDI	0.96 (0.53,1.74)	FDI	.	0.88 (0.47,1.66)	.	0.92 (0.56,1.51)	.
IDX	0.46 (0.12,1.82)	0.48 (0.14,1.65)	IDX	1.85 (0.64,5.41)	.	.	.
ISC	0.85 (0.36,2.02)	0.88 (0.47,1.66)	1.85 (0.64,5.41)	ISC	.	.	.
ISFG	0.77 (0.46,1.27)	0.80 (0.37,1.73)	1.67 (0.39,7.21)	0.90 (0.33,2.44)	ISFG	.	1.20 (0.73,1.98)
OFS	0.89 (0.64,1.23)	0.92 (0.56,1.51)	1.93 (0.51,7.33)	1.04 (0.47,2.31)	1.16 (0.63,2.10)	OFS	.
SCA	0.92 (0.56,1.52)	0.96 (0.44,2.07)	2.01 (0.47,8.66)	1.08 (0.40,2.93)	1.20 (0.73,1.98)	1.04 (0.58,1.88)	SCA

Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

Supplement 20 - Results to Any Adverse Event - GI Analysis

Intravenous agent	Comparator	Estimative	MD	95% CI	Certainty of Evidence
FCM	FDI	Network	0.98	(0.86, 1.11)	Very Low
	ISC	Network	0.92	(0.45, 1.88)	Very Low
	OFS	Network	1.11	(0.80, 1.54)	Very Low
FDI	ISC	Network	0.94	(0.47, 1.90)	Very Low
	OFS	Network	1.13	(0.84, 1.53)	Very Low
ISC	OFS	Network	1.20	(0.64, 2.26)	Very Low

Ranking - Any Adverse Event - GI sobgroup



League Table – Any adverse event – GI subgroup

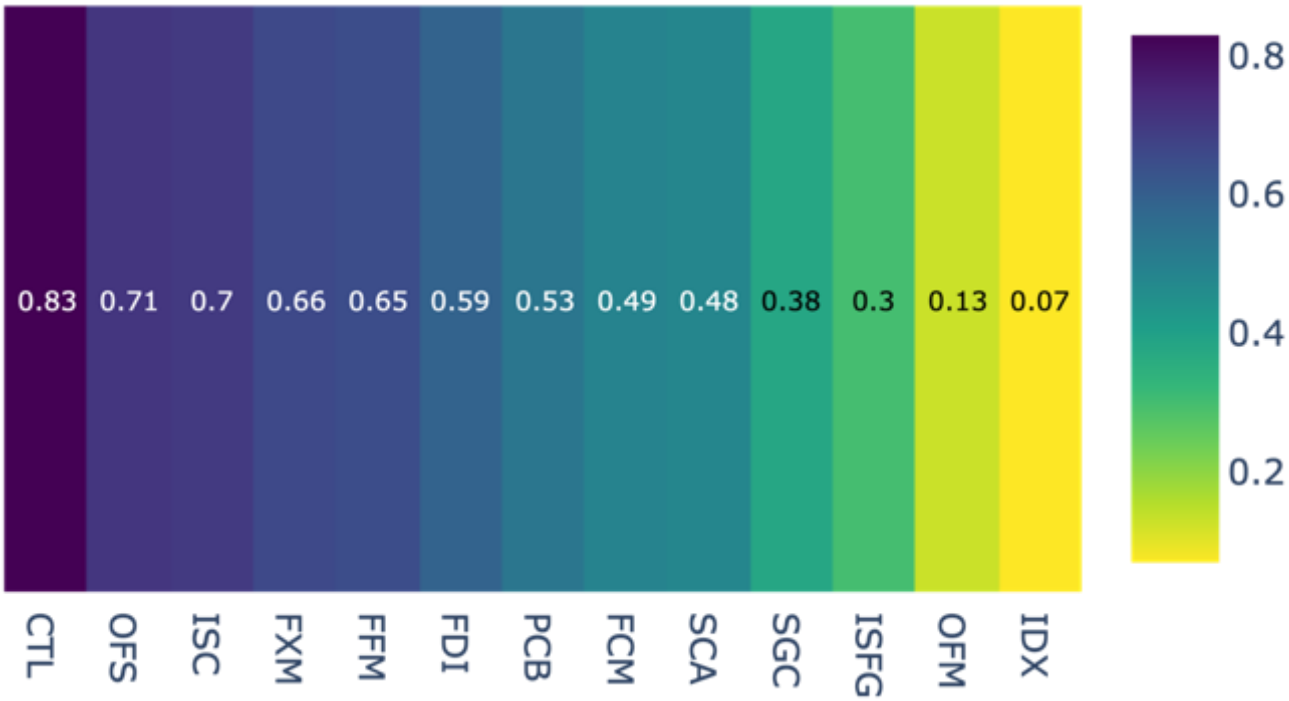
Intravenous agent	FCM	FDI	ISC	OFM	OFS
FCM	FCM	0.98 (0.86,1.11)	.	0.60 (0.46,0.80)	.
FDI	0.98 (0.86,1.11)	FDI	.	.	1.13 (0.84,1.53)
ISC	0.92 (0.45,1.88)	0.94 (0.47,1.90)	ISC	.	1.20 (0.64,2.26)
OFM	0.60 (0.46,0.80)	0.61 (0.45,0.84)	0.65 (0.30,1.40)	OFM	.
OFS	1.11 (0.80,1.54)	1.13 (0.84,1.53)	1.20 (0.64,2.26)	1.84 (1.20,2.84)	OFS

Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

Supplement 21 - Results to Serious Adverse Event - Overall Analysis

Intravenous agent	Comparator	Estimative	RR	95% CI	Certainty of evidence
FCM	FDI	Network	1.04	(0.72, 1.50)	Low
	ISC	Network	1.16	(0.89, 1.53)	Low
	FXM	Network	1.14	(0.84, 1.54)	Low
	IDX	Network	0.16	(0.02, 1.32)	Low
	SGC	Network	0.55	(0.05, 6.10)	Low
	OFS	Network	1.02	(0.76, 1.37)	Very Low
FDI	ISC	Network	1.12	(0.74, 1.68)	Low
	FXM	Network	1.09	(0.71, 1.69)	Low
	IDX	Network	0.16	(0.02, 1.30)	Low
	SGC	Network	0.53	(0.05, 5.97)	Low
	OFS	Network	1.11	(0.79, 1.58)	Very Low
ISC	FXM	Network	0.98	(0.79, 1.21)	Low
	IDX	Network	0.14	(0.02, 1.11)	Low
	SGC	Network	0.47	(0.04, 5.16)	Low
	OFS	Network	1.00	(0.78, 1.28)	Low
FXM	IDX	Network	0.14	(0.02, 1.15)	Low
	SGC	Network	0.49	(0.04, 5.33)	Low
	OFS	Network	1.02	(0.76, 1.37)	Low
IDX	SGC	Network	3.41	(0.72, 16.05)	Low
	OFS	Network	7.16	0.88, 58.12)	Low
SGC	OFS	Network	2.10	(0.19, 23.14)	Low

Ranking – Serious adverse events



Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

League Table – Serious adverse events

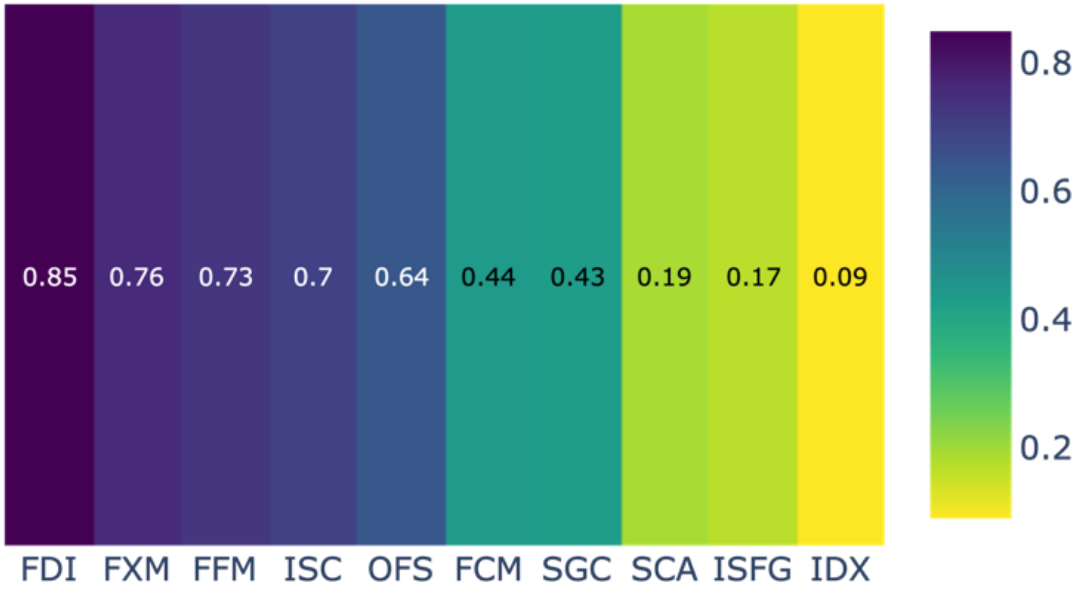
Intravenous agent	CTL	FCM	FDI	FFM	FXM	IDX	ISC	ISFG	OFM	OFS	PCB	SCA	SGC
CTL	CTL	0.25 (0.01, 5.34)	.	.	.	.	.	.	.	.	.	.	.
FCM	0.25 (0.01, 5.34)	FCM	1.18 (0.38, 3.60)	.	0.97 (0.61, 1.53)	.	1.46 (0.59, 3.62)	0.37 (0.17, 0.83)	0.35 (0.12, 1.06)	1.26 (1.03, 1.54)	.	0.40 (0.19, 0.85)	.
FDI	0.26 (0.01, 5.68)	1.04 (0.72, 1.50)	FDI	.	.	.	1.08 (0.33, 3.58)	.	.	0.84 (0.54, 1.30)	.	0.96 (0.89, 1.03)	.
FFM	0.29 (0.01, 6.83)	1.17 (0.55, 2.49)	1.12 (0.49, 2.55)	FFM	0.97 (0.49, 1.95)	.	.	.	.	.	.	.	.
FXM	0.28 (0.01, 6.16)	1.14 (0.84, 1.54)	1.09 (0.71, 1.69)	0.97 (0.49, 1.95)	FXM	.	0.98 (0.78, 1.24)	.	.	.	0.87 (0.39, 1.94)	.	.
IDX	0.04 (0.00, 1.65)	0.16 (0.02, 1.32)	0.16 (0.02, 1.30)	0.14 (0.02, 1.26)	0.14 (0.02, 1.15)	IDX	7.19 (0.90,57.49)	.	.	.	.	.	3.41 (0.72,16.05)
ISC	0.29 (0.01, 6.29)	1.16 (0.89, 1.53)	1.12 (0.74, 1.68)	1.00 (0.48, 2.06)	1.02 (0.83, 1.27)	7.19 (0.90, 57.49)	ISC	.	.	0.95 (0.71, 1.28)	.	.	0.47 (0.04, 5.16)
ISFG	0.18 (0.01, 4.10)	0.72 (0.38, 1.37)	0.69 (0.38, 1.25)	0.62 (0.23, 1.64)	0.63 (0.32, 1.27)	4.44 (0.50, 39.53)	0.62 (0.31, 1.22)	ISFG	.	.	.	1.08 (0.58, 2.00)	.
OFM	0.09 (0.00, 2.28)	0.35 (0.12, 1.06)	0.34 (0.11, 1.08)	0.30 (0.08, 1.15)	0.31 (0.10, 0.97)	2.18 (0.20, 23.29)	0.30 (0.10, 0.94)	0.49 (0.14, 1.76)	OFM	.	.	.	.
OFS	0.29 (0.01, 6.22)	1.16 (0.97, 1.39)	1.11 (0.79, 1.58)	0.99 (0.47, 2.11)	1.02 (0.76, 1.37)	7.16 (0.88, 58.12)	1.00 (0.78, 1.28)	1.61 (0.85, 3.08)	3.29 (1.07, 10.07)	OFS	.	.	.
PCB	0.24 (0.01, 5.92)	0.99 (0.42, 2.32)	0.95 (0.38, 2.36)	0.84 (0.29, 2.44)	0.87 (0.39, 1.94)	6.09 (0.65, 57.13)	0.85 (0.37, 1.94)	1.37 (0.47, 3.97)	2.80 (0.69, 11.31)	0.85 (0.36, 2.00)	PCB	.	.
SCA	0.24 (0.01, 5.39)	0.99 (0.68, 1.43)	0.95 (0.88, 1.02)	0.85 (0.37, 1.92)	0.87 (0.56, 1.35)	6.10 (0.73, 50.80)	0.85 (0.56, 1.28)	1.37 (0.76, 2.49)	2.80 (0.87, 8.97)	0.85 (0.60, 1.21)	1.00 (0.40, 2.50)	SCA	.
SGC	0.14 (0.00, 6.74)	0.55 (0.05, 6.10)	0.53 (0.05, 5.97)	0.47 (0.04, 5.73)	0.49 (0.04, 5.33)	3.41 (0.72, 16.05)	0.47 (0.04, 5.16)	0.77 (0.06, 9.18)	1.57 (0.11, 22.02)	0.48 (0.04, 5.24)	0.56 (0.04, 7.01)	0.56 (0.05, 6.29)	SGC

Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

Supplement 22 - Results to Serious Adverse Event - Renal Analysis

Intravenous agent	Comparator	Estimative	MD	95% CI	Certainty of evidence
FCM	FDI	Network	1.81	(0.82, 3.98)	Low
	ISC	Network	1.36	(0.95, 1.94)	Low
	FXM	Network	1.43	(0.93, 2.20)	Low
	IDX	Network	0.19	(0.02, 1.56)	Low
	SGC	Network	0.64	(0.06, 7.20)	Low
	OFS	Network	**1.27**	**(1.04, 1.56)**	Very Low
FDI	ISC	Network	0.75	(0.34, 1.67)	Low
	FXM	Network	0.79	(0.34, 1.82)	Low
	IDX	Network	**0.10**	**(0.01, 0.97)**	Low
	SGC	Network	0.36	(0.03, 4.42)	Low
	OFS	Network	0.7	(0.33, 1.50)	Very Low
ISC	FXM	Network	1.05	(0.83, 1.34)	Low
	IDX	Network	0.14	(0.02, 1.11)	Low
	SGC	Network	0.47	(0.04, 5.16)	Low
	OFS	Network	0.94	(0.70, 1.25)	Low
FXM	IDX	Network	0.13	(0.02, 1.07)	Low
	SGC	Network	0.45	(0.04, 4.96)	Low
	OFS	Network	0.89	(0.61, 1.30)	Low
IDX	SGC	Network	3.41	(0.72, 16.04)	Low
	OFS	Network	6.73	(0.82, 54.91)	Low
SGC	OFS	Network	1.97	(0.18, 21.85)	Low

Ranking - Serious Adverse Event - Renal Analysis



Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

League Table - Serious Adverse Event - Renal Analysis

Intravenous agent	FCM	FDI	FFM	FXM	IDX	ISC	ISFG	OFS	SCA	SGC
FCM	FCM	.	.	.	.	.	0,37 (0.17, 0.83)	1,27 (1.04, 1.56)	0,4 (0.19, 0.85)	.
FDI	1,81 (0.82, 3.98)	FDI	.	.	.	1,99 (0.22,17.76)	.	0,62 (0.27, 1.38)	.	.
FFM	1,47 (0.65, 3.32)	0,81 (0.27, 2.40)	FFM	0,97 (0.49, 1.95)	.	.	.	.	.	.
FXM	1,43 (0.93, 2.20)	0,79 (0.34, 1.82)	0,97 (0.49, 1.95)	FXM	.	0,95 (0.75, 1.21)	.	.	.	.
IDX	0,19 (0.02, 1.56)	0,1 (0.01, 0.97)	0,13 (0.01, 1.17)	0,13 (0.02, 1.07)	IDX	7,19 (0.90,57.47)	.	.	.	3,41 (0.72,16.04)
ISC	1,36 (0.95, 1.94)	0,75 (0.34, 1.67)	0,93 (0.44, 1.93)	0,95 (0.75, 1.21)	7,19 (0.90,57.47)	ISC	.	0,95 (0.71, 1.28)	.	0,47 (0.04, 5.16)
ISFG	0,37 (0.17, 0.83)	0,2 (0.07, 0.63)	0,25 (0.08, 0.79)	0,26	1,96 (0.21,18.73)	0,27 (0.11, 0.66)	ISFG	.	1,08 (0.58, 2.00)	.
OFS	1,27 (1.04, 1.56)	0,7 (0.33, 1.50)	0,87 (0.39, 1.91)	0,89 (0.61, 1.30)	6,73 (0.82,54.90)	0,94 (0.70, 1.25)	3,43 (1.50, 7.86)	OFS	.	.
SCA	0,4 (0.19, 0.85)	0,22 (0.07, 0.65)	0,27 (0.09, 0.82)	0,28 (0.12, 0.66)	2,11 (0.22,19.80)	0,29 (0.13, 0.67)	1,08 (0.58, 2.00)	0,31 (0.14, 0.68)	SCA	.
SGC	0,64 (0.06, 7.20)	0,36 (0.03, 4.42)	0,44 (0.04, 5.33)	0,45 (0.04, 4.96)	3,41 (0.72,16.04)	0,47 (0.04, 5.16)	1,74 (0.14,22.10)	0,51 (0.05, 5.61)	1,62 (0.13,20.22)	SGC

Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

Supplement 23 - Results to Serious Adverse Event - GI Analysis

Intravenousagent	Comparator	Estimative	MD	95% CI	Certainty of evidence
FCM	FDI	Network	1.25	(0.43, 3.62)	Low
	ISC	Network	2.94	(0.12, 71.78)	Very Low
	OFS	Network	5.99	(0.98, 36.47)	Very Low
FDI	ISC	Network	2.35	(0.08, 68.37)	Very Low
	OFS	Network	4.80	(0.87, 26.49)	Very Low
ISC	OFS	Network	2.04	(0.05, 80.05)	Very Low

Ranking - Serious Adverse Event - GI Analysis

League Table - Serious Adverse Event - GI Analysis

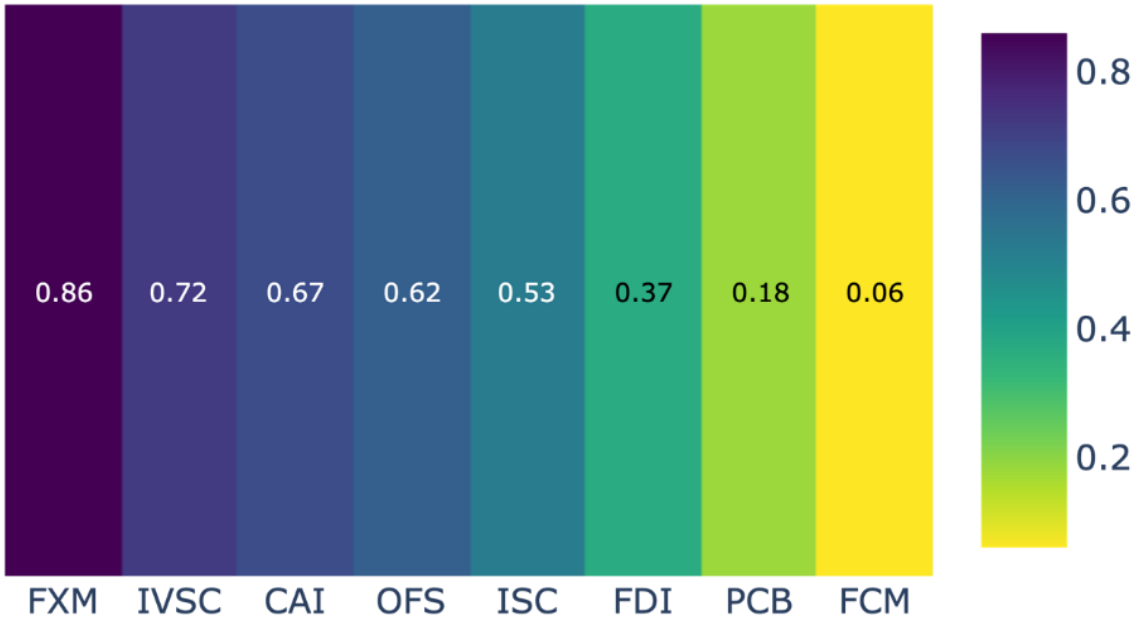
Intravenous agent	FCM	FDI	ISC	OFM	OFS
FCM	FCM	1.18 (0.38, 3.60)	2.94 (0.12, 71.78)	0.35 (0.12, 1.06)	8.77 (0.52,148.42)
FDI	1.25 (0.43, 3.62)	FDI	.	.	3.91 (0.50, 30.87)
ISC	2.94 (0.12, 71.78)	2.35 (0.08, 68.37)	ISC	.	.
OFM	0.35 (0.12, 1.06)	0.28 (0.06, 1.31)	0.12 (0.00, 3.53)	OFM	.
OFS	5.99 (0.98, 36.47)	4.80 (0.87, 26.49)	2.04 (0.05, 80.04)	16.97 (2.04, 141.00)	OFS

Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

Supplement 24 - Results to Hypophosphatemia - Overall Analysis

Intravenous	Comparator	Estimative	RR	95% CI	Certainty of evidence
FCM	FDI	Network	**4.97**	**(1.75, 14.17)**	Moderate
	ISC	Network	**8.33**	**(3.01, 23.06)**	Moderate
	FXM	Network	**49.92**	**(7.51, 331.86)**	Moderate
	OFS	Network	**13.45**	**(1.22, 147.84)**	Moderate
FDI	ISC	Network	1.68	(0.60, 4.68)	Moderate
	FXM	Network	**10.03**	**(1.15, 87.40)**	Moderate
	OFS	Network	2.7	(0.25, 28.71)	Moderate
ISC	FXM	Network	5.99	(0.70, 51.44)	Moderate
	OFS	Network	1.61	(0.13, 19.32)	Moderate
FXM	OFS	Network	0.27	(0.01, 5.72)	Moderate

Ranking – hypophosphatemia – Overall population



Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

League Table - hypophosphatemia – Overall population

Intravenous agent	CAI	FCM	FDI	FXM	ISC	IVSC	OFS	PCB
CAI	CAI	0.05 (0.00, 0.95)	.	.	.	.	.	.
FCM	0.05 (0.00, 0.95)	FCM	8.17 (2.10, 31.75)	49.92 (7.51,331.85)	5.30 (1.55, 18.16)	28.08 (0.82,967.16)	19.54 (0.56,686.24)	1.62 (0.18, 14.17)
FDI	0.26 (0.01, 5.69)	4.97 (1.75, 14.17)	FDI	.	2.67 (0.76, 9.35)	.	2.05 (0.10, 43.76)	.
FXM	2.59 (0.08, 83.49)	49.92 (7.51, 331.85)	10.03 (1.15, 87.39)	FXM	.	.	.	.
ISC	0.43 (0.02, 9.44)	8.33 (3.01, 23.06)	1.68 (0.60, 4.68)	0.17 (0.02, 1.43)	ISC	.	.	.
IVSC	1.46 (0.01, 142.50)	28.08 (0.82, 967.16)	5.65 (0.14, 226.25)	0.56 (0.01, 31.16)	3.37 (0.08, 133.94)	IVSC	.	.
OFS	0.70 (0.02, 30.31)	13.45 (1.22, 147.84)	2.70 (0.25, 28.71)	0.27 (0.01, 5.72)	1.61 (0.13, 19.32)	0.48 (0.01, 34.41)	OFS	.
PCB	0.08 (0.00, 3.17)	1.62 (0.18, 14.17)	0.33 (0.03, 3.62)	0.03 (0.00, 0.58)	0.19 (0.02, 2.13)	0.06 (0.00, 3.66)	0.12 (0.00, 3.05)	PCB

Legend: CAI - Carbonil iron tablet, CTL – Control, FAS - Ferrous ascorbate, FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, FFM - Ferrous fumarate, FSC - Ferrous succinate, FXM – Ferumoxytol, IDX - Iron dextran, IQR -interquartile range, ISC - Iron sucrose, ISFG - Iron sucrose or sodium ferric gluconate, IVSC - Intravenous Standard-of-care, OFM - Oral ferric maltol, OFS - Oral Ferrous Sulfate, OLS - Oral lipossomal iron, PCB – Placebo, SCA - Standard of care, SFO - Saccharated ferric oxide, SGC – Sodium ferric gluconate complex, SUI - Sucrosial Iron.

Supplement 25 - Results to Hypophosphatemia - Renal Analysis

Intravenous agent	Comparator	Estimative	MD	95% CI	Certainty of evidence
FDI	ISC	**Network**	**3.79**	**(1.81, 7.95)**	Moderate
	OFS	**Network**	**3.79**	**(1.81, 7.95)**	Moderate
ISC	OFS	Network	0.54	(0.05, 5.41)	Low

Ranking - Hypophosphatemia - Renal Analysis

League Table - Hypophosphatemia - Renal Analysis

Intravenous agent	FDI	ISC	OFS
FDI	FDI	3.79 (1.81, 7.95)	2.05 (0.23,18.16)
ISC	3.79 (1.81, 7.95)	ISC	.
OFS	2.05 (0.23,18.16)	0.54 (0.05, 5.41)	OFS

Legend: FDI - Ferric derisomaltose, ISC - Iron sucrose, OFS - Oral Ferrous Sulfate.

Supplement 26 - Results to Hypophosphatemia - GI Analysis

Intravenous agent	Comparator	Estimative	MD	95% CI	Certainty of evidence
FCM	FDI	Network	**4.73**	**(2.16, 10.37)**	Low
	ISC	Network	**22.50**	**(11.81, 42.89)**	Low
FDI	ISC	Network	4.75	(1.72, 13.12)	Low

Ranking - Hypophosphatemia - GI Analysis

League Table - Hypophosphatemia - GI Analysis

Treatment	FCM	FDI	ISC
FCM	FCM	4.73 (2.16,10.37)	22.50 (11.81,42.89)
FDI	4.73 (2.16,10.37)	FDI	.
ISC	22.50 (11.81,42.89)	4.75 (1.72,13.12)	ISC

Legend: FCM - Ferric carboxymaltose, FDI - Ferric derisomaltose, ISC - Iron sucrose.