

**Table S5. Summary of results: secondary outcomes**

Secondary Outcomes	Number of Participants (RCTs)	Effect	
		Risk Ratio (95% CI)	Mean Difference (95% CI)
Prevention of IDA: language			
Language development (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	--	0.52 (-1.31, 2.35)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	--	2.30 (-0.01, 4.61)
Language development score <85 (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	0.79 (0.40, 1.58)	--
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	0.50 (0.15, 1.66)	--
Expressive language (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	--	-0.12 (-0.45, 0.21)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	--	0.21 (-0.26, 0.68)
Expressive language score < 7 (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	0.73 (0.38, 1.39)	--
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	1.67 (0.77, 3.62)	--
Receptive language (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	--	0.30 (-0.16, 0.76)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	--	0.55 (-0.06, 1.16)

Receptive language score < 7 (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	1.04 (0.37, 2.89)	--
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	1.76 (0.33, 9.38)	--
<b>Treatment of ID: language</b>			
Communication (ASQ at 12 months)			
Baseline Hb 110-130 g/L			
1000 mg versus 500 mg IV FCM	130 (1 RCT) [2]	2.00 (-1.64, 5.64)	--
<b>Prevention of IDA: language</b>			
Verbal reasoning (SBIS at four years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	0.00 (-2.60, 2.60)
Verbal comprehension index (WPPSI-IV at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	-1.10 (-5.01, 2.81)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	1.41 (-3.40, 6.22)
Vocabulary acquisition index (WPPSI-IV at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	-2.39 (-6.49, 1.71)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	0.82 (-4.30, 5.94)
Non-verbal index (WPPSI-IV at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	1.91 (-1.89, 5.71)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	0.19 (-3.92, 4.30)
Verbal fluency (WPPSI-IV at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	-0.66 (-1.49, 0.17)

Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	-0.44 (-1.45, 0.57)
<b>Prevention of IDA: motor development</b>			
Motor development (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	--	-0.56 (-3.07, 1.95)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	--	0.92 (-2.25, 4.09)
Motor development score < 85 (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	1.30 (0.35, 4.74)	--
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	1.76 (0.33, 9.38)	--
Gross motor (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	--	0.05 (-0.16, 0.27)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	--	0.07 (-0.22, 0.37)
Gross motor development score < 7 (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	0.35 (0.01, 8.42)	--
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	Not estimable	
Fine motor development (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	328 (1 RCT) [1]	--	-0.04 (-0.25, 0.18)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	--	0.02 (-0.28, 0.32)
Fine motor development score < 7 (Bayley-III at 40 days)			
Baseline Hb 110-130 g/L			

80 mg versus 40 mg oral iron	328 (1 RCT) [1]	1.04 (0.07, 16.44)	--
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	175 (1 RCT) [1]	1.76 (0.16, 19.09)	--
<b>Treatment of ID: motor development</b>			
Gross motor (ASQ at 12 months)			
Baseline Hb 110-130 g/L			
1000 mg versus 500 mg IV FCM	130 (1 RCT) [2]	--	0.06 (-0.29, 0.41)
Fine motor (ASQ AT 12 MONTHS)			
Baseline Hb 110-130 g/L			
1000 mg versus 500 mg IV FCM	130 (1 RCT) [2]	--	0.10 (-0.25, 0.45)
<b>Treatment of ID: emotional behavioural functioning</b>			
Personal social development (ASQ at 12 months)			
Baseline Hb 110-130 g/L			
1000 mg versus 500 mg IV FCM	134 (1 RCT) [2]	--	0.08 (-0.27, 0.42)
<b>Prevention of IDA: emotional behavioural functioning</b>			
Emotion (parent-rated SDQ at four years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	0.10 (-0.31, 0.51)
Conduct (parent-rated SDQ at four years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	0.10 (-0.34, 0.54)
Hyperactivity (parent-rated SDQ at four years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	0.00 (-0.50, 0.50)
Peer relations (parent-rated SDQ at four years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	0.40 (0.04, 0.76)
Total behavioural difficulties score (parent-rated SDQ at four years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	0.40 (-0.79, 1.59)

Total difficulties score $\geq 17$ (parent-rated SDQ at four years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	1.95 (1.01, 3.75)	--
Emotion recognition (NEPSY-II at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	-0.62 (-1.35, 0.11)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	0.04 (-0.93, 1.01)
<b>Prevention of IDA: emotional behavioural functioning</b>			
Emotion (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	-0.30 (-0.81, 0.21)
Emotion score $\geq 5$ (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	1.13 (0.60, 2.11)	--
Conduct (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	-0.20 (-0.65, 0.25)
Conduct score $\geq 4$ (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	0.87 (0.50, 1.50)	--
Hyperactivity (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	0.00 (-0.66, 0.66)
Hyperactivity score $\geq 7$ (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	1.05 (0.61, 1.78)	--

Peer problems (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	0.00 (-0.39, 0.39)
Peer problems score $\geq 4$ (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	1.23 (0.62, 2.46)	--
Pro-social behaviour (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	0.10 (-0.35, 0.55)
Pro-social behaviour score $\leq 4$ (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	1.17 (0.40, 3.38)	--
Total behavioural difficulties score (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	-0.60 (-2.07, 0.87)
Total difficulties score $\geq 17$ (parent-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	0.88 (0.46, 1.69)	--
Emotion (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	--	-0.30 (-0.83, 0.23)
Emotion score $\geq 5$ (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	0.45 (0.14, 1.41)	--
Conduct (teacher-rated SDQ at six to eight years)			

Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	--	0.10 (-0.35, 0.55)
Conduct score $\geq 4$ (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	1.14 (0.45, 2.84)	--
Hyperactivity (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	--	-0.10 (-0.90, 0.70)
Hyperactivity score $\geq 7$ (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	0.55 (0.29, 1.06)	--
Peer problems (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	--	0.20 (-0.24, 0.64)
Peer problems score $\geq 4$ (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	3.70 (1.06, 12.91)	--
Pro-social behaviour (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	--	0.20 (-0.39, 0.79)
Pro-social behaviour score $\leq 4$ (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	0.65 (0.29, 1.44)	
Total behavioural difficulties score (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			

20 mg oral iron versus placebo	225 (1 RCT) [5]	--	-0.10 (-1.73, 1.53)
Total difficulties score $\geq 17$ (teacher-rated SDQ at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	225 (1 RCT) [5]	0.78 (0.36, 1.70)	--
Approach (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	-0.10 (-0.34, 0.14)
Approach score >1 SD above mean (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	1.11 (0.62, 1.96)	--
Rhythmicity (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	-0.10 (-0.29, 0.09)
Rhythmicity score >1 SD above mean (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	0.96 (0.57, 1.61)	--
Inflexibility (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	-0.10 (-0.34, 0.14)
Inflexibility > 1 SD above mean (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	1.26 (0.73, 2.19)	--
Persistence (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	0.10 (-0.11, 0.31)
Persistence score > 1 SD above mean (parent-rated STS at six to eight years)			



Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	1.53 (0.90, 2.58)	--
Total easy-difficult temperament (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	--	0.00 (-0.15, 0.15)
Total easy-difficult temperament score >1 SD above mean (parent-rated STS at six to eight years)			
Baseline Hb > 110 g/L			
20 mg oral iron versus placebo	264 (1 RCT) [5]	1.15 (0.66, 1.99)	--
<b>Prevention of IDA: other cognitive outcomes</b>			
Visual reasoning (SBIS at four years)			
Baseline Hb >110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	-1.00 (-3.37, 1.37)
Quantitative reasoning (SBIS at four years)			
Baseline Hb >110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	0.00 (-2.71, 2.71)
Short-term memory (SBIS at four years)			
Baseline Hb >110 g/L			
20 mg oral iron versus placebo	302 (1 RCT) [3]	--	0.00 (-2.71, 2.71)
Fluid reasoning index (WPPSI-IV at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	-0.26 (-4.21, 3.69)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	2.34 (-2.46, 7.14)
Working memory index (WPPSI-IV at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	-0.29 (-3.82, 3.24)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	-0.97 (-5.60, 3.66)
Processing speed index (WPPSI-IV at four years)			

Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	1.85 (-1.92, 5.62)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	0.57 (-3.95, 5.09)
General ability index (WPPSI-IV at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	-0.06 (-3.67, 3.55)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	2.25 (-2.04, 6.54)
Cognitive proficiency index (WPPSI-IV at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	1.59 (-1.99, 5.17)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	0.72 (-3.74, 5.18)
Visual-motor precision (NEPSY-II at four years)			
Baseline Hb 110-130 g/L			
80 mg versus 40 mg oral iron	182 (1 RCT) [4]	--	0.29 (-0.63, 1.21)
Baseline Hb > 130 g/L			
40 mg versus 20 mg oral iron	106 (1 RCT) [4]	--	0.92 (-0.26, 2.10)

Abbreviations: ASQ AT 12 MONTHS: Ages and Stages Questionnaire; Bayley-III at 40 days: Bayley Scales of Infant Development version 3; Hb: haemoglobin; ID: iron deficiency; IDA: iron deficiency anaemia; IV FCM: intravenous ferric carboxymaltose; NEPSY-II: Neuropsychological Assessment second edition; SBIS: Stanford-Binet Intelligence Scale; SDQ: Strengths and Difficulties Questionnaire; STS: Short Temperament Scale; WPPSI-IV: Wechsler Preschool and Primary Scale of Intelligence version 4.

## References

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