

Supplemental Material S2

Supplemental Table S1. Cross-sectional associations of anemia markers with cognitive function, executive function, and health-related quality of life.

	<i>Adjusted-mean difference (β) (95% CI)</i>					
	Hemoglobin (g/dl)*		Hematocrit (%)*		MCV⁴ (fL)*	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Cognitive function						
Minimental test ¹	0.08	0.06	0.09	0.06	0.06	0.04
(Total score)	(0.03, 0.13)	(0.01, 0.11)	(0.04, 0.14)	(0.01, 0.11)	(0.02, 0.11)	(-0.00, 0.09)
Executive function						
Trail Making Test: A, total time (seconds) ²	0.51	0.85	0.01	0.41	-0.04	0.32
	(-0.24, 1.26)	(0.12, 1.58)	(-0.75, 0.77)	(-0.34, 1.16)	(-0.74, 0.66)	(-0.36, 1.00)
Trail Making Test: B, total time (seconds) ²	-3.33	-1.75	-3.43	-2.01	0.45	0.67
	(-4.13, -0.54)	(-3.57, 0.07)	(-5.35, -1.51)	(-3.85, -0.17)	(-2.21, 1.32)	(-0.01, 2.34)
Semantic verbal fluency of animals: total	0.19	0.02	0.19	0.12	0.13	0.06
	(0.07, 0.32)	(-0.10, 0.14)	(0.07, 0.32)	(-0.01, 0.24)	(0.01, 0.25)	(-0.06, 0.17)
Phonological verbal fluency of letter P: total	0.12	0.05	0.19	0.09	0.16	0.08
	(0.00, 0.24)	(-0.06, 0.16)	(0.07, 0.31)	(-0.03, 0.20)	(0.05, 0.27)	(-0.03, 0.18)
Digit total score (forward + backward)	0.05	-0.02	0.05	0.03	0.08	-0.05
	(-0.10, 0.19)	(-0.16, 0.12)	(-0.10, 0.19)	(-0.09, 0.16)	(-0.05, 0.21)	(-0.16, 0.06)
Clock Drawing Test	0.03	0.02	0.02	0.01	0.01	0.00
	(-0.01, 0.06)	(-0.02, 0.05)	(-0.01, 0.06)	(-0.02, 0.05)	(-0.02, 0.04)	(-0.03, 0.03)
SF36-HRQL test³	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Aggregated physical dimension	0.66	0.50	0.41	0.28	0.36	0.31
	(0.41, 0.91)	(0.25, 0.74)	(0.17, 0.66)	(0.04, 0.52)	(0.14, 0.58)	(0.10, 0.52)
Aggregated mental dimension	0.15	-0.02	0.27	0.17	0.12	0.10
	(-0.15, 0.45)	(-0.31, 0.27)	(-0.02, 0.57)	(-0.11, 0.46)	(-0.14, 0.38)	(-0.15, 0.35)

* Per 1-standard deviation increment

¹MMSE: Mini-Mental State Examination

² For these tests, unlike the others, the lower the score (time), the better the cognitive function.

³ Short Form-36 Health Survey for evaluating the health-related quality of life.

⁴ Medium corpuscular volume

Model 1 adjusted for sex, age, center, vitamin B12 and folic acid.

Model 2 further adjusted for BMI, educational level, tobacco use, physical activity, adherence to a Mediterranean diet (score of 17 points), hours of sleep, alcohol consumption, hypertension, hypercholesterolemia, diabetes cancer and depression

Supplemental Table S2. Cross-sectional associations of anemia status and red blood cells with each physical dimension of the quality of life test.

	<i>Adjusted-mean difference (β) (95% CI)</i>			
	Anemia	Hemoglobin*	Hematocrit*	MCV ² *
Physical dimension of the SF36-HRQL test				
Physical function	-4.60 (-6.79, -2.40)	0.68 (0.21, 1.15)	0.81 (0.33, 1.30)	0.33 (-0.11, 0.77)
Role physical ¹	-7.74 (-12.7, -3.42)	1.45 (0.50, 2.41)	1.33 (0.08, 1.47)	1.23 (0.37, 2.09)
Bodily pain	-3.38 (-6.54, -0.23)	1.19 (0.51, 1.86)	0.78 (0.39, 1.82)	0.54 (-0.09, 1.17)
Vitality	-2.65 (-5.16, -0.13)	0.77 (0.22, 1.32)	0.49 (-0.07, 1.05)	0.35 (-0.15, 0.85)
General health	-4.91 (-7.17, -2.66)	0.78 (0.28, 1.28)	0.06 (-0.44, 0.56)	0.74 (0.29, 1.19)

Anemia was defined according to the World Health Organization (WHO) criteria of hemoglobin concentrations below 13 g/dL for men and below 12 g/dL for women.

* Per 1-standard deviation increment

¹Role limitations due to physical health problems

²Medium corpuscular volume

Estimations adjusted for sex, age, center, vitamin B12 and folic acid, BMI, educational level, tobacco use, physical activity, adherence to a Mediterranean diet (score of 17 points), hours of sleep, alcohol consumption, hypertension, hypercholesterolemia, diabetes cancer and depression.