

Supplemental Online Content

Murai IH, Fernandes AL, Sales LP, Pinto AJ, Goessler KF, Duran CSC, Silva CBR, Franco AES, Macedo MB, Dalmolin HHH, Baggio J, Balbi GGM, Reis BZ, Antonangelo L, Caparbo VF, Gualano B, Pereira RMR. Effect of a Single High Dose of Vitamin D₃ on Hospital Length of Stay in Patients With Moderate to Severe COVID-19. *JAMA*. Published online February 17, 2021.
doi:10.1001/jama.2020.26848

Supplement 2. eTable 1. Baseline laboratory values

eTable 2. Laboratory values

eTable 3. Baseline Demographic and Clinical Characteristics from the patients with 25-hydroxyvitamin D deficiency (< 20 ng/mL)

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Baseline laboratory values.		
	Vitamin D ₃ group (n = 119)	Placebo group (n = 118)
Haemoglobin, mean (SD), g/L	13.1 (2.1) [n = 118]	12.8 (2.1) [n = 118]
Neutrophils count, mean (SD), x10 ³ /mm ³	6.7 (4.0) [n = 118]	7.2 (3.6) [n = 118]
Lymphocyte count, mean (SD), x10 ³ /mm ³	1.2 (0.5) [n = 118]	1.2 (0.8) [n = 118]
Platelet count, mean (SD), x10 ³ /mm ³	306.9 (115.7) [n = 119]	288.0 (129.2) [n = 118]
Erythrocyte sedimentation rate, median (IQR), mm	57.0 (23.0 to 89.8) [n = 116]	60.0 (31.8 to 86.3) [n = 114]
Gamma globulins, mean (SD), g/L	1.1 (0.4) [n = 109]	1.1 (0.3) [n = 99]
Albumin, mean (SD), g/L	3.1 (0.5) [n = 109]	3.0 (0.4) [n = 99]
Urea, mean (SD), mg/dL	40.1 (20.2) [n = 119]	37.9 (14.4) [n = 117]
Parathyroid hormone, mean (SD), pg/mL	49.6 (26.8) [n = 112]	42.8 (21.6) [n = 109]
Phosphorus, mean (SD), mg/dL	3.0 (0.6) [n = 116]	3.0 (0.8) [n = 114]
Total cholesterol, mean (SD), mg/dL	164.8 (43.2) [n = 115]	164.6 (47.4) [n = 114]
Triglycerides, mean (SD), mg/dL	179.3 (75.5) [n=115]	192.8 (94.0) [n = 113]
HDL-cholesterol, mean (SD), mg/dL	34.7 (11.4) [n = 115]	34.5 (11.1) [n = 113]
LDL-cholesterol, mean (SD), mg/dL	101.6 (34.6) [n = 115]	99.3 (39.3) [n = 113]

Variables	Vitamin D ₃ group		Placebo group		Between-group difference (95% CI)	P value ^a	P value ^b
	Baseline	Post	Baseline	Post			
Total calcium, mean (SD), mg/dL	8.7 (0.5)	9.1 (0.6)	8.7 (0.5)	9.1 (0.5)	0.02 (-0.17 to 0.22)	.91	>.99
Creatinine, mean (SD), mg/dL	0.9 (0.3)	1.0 (0.7)	0.8 (0.2)	0.9 (0.6)	0.06 (-0.17 to 0.29)	.88	>.99
C-reactive protein, median (IQR), mg/L	57.9 (23.3 to 100.5)	9.3 (4.3 to 21.6)	68.4 (31.5 to 111.5)	10.0 (4.5 to 20.3)	-0.66 (-5.34 to 4.00)	.68	>.99
D-dimer, median (IQR), ng/mL	823 (566 to 1,769)	797 (505 to 1390)	840 (497 to 1,490)	788 (503 to 1349)	30.4 (-255.4 to 316.2)	.39	>.99
Haemoglobin, mean (SD), g/L	13.1 (2.1)	12.7 (2.4)	12.8 (2.1)	12.7 (2.1)	0.03 (-0.76 to 0.83)	.55	>.99
Neutrophils count, mean (SD), x10 ³ /mm ³	6.7 (4.0)	7.0 (4.2)	7.2 (3.6)	7.1 (4.9)	-0.14 (-1.72 to 1.45)	.44	>.99
Lymphocyte count, mean (SD), x10 ³ /mm ³	1.2 (0.5)	1.8 (0.9)	1.2 (0.8)	2.0 (1.1)	-0.17 (-0.53 to 0.19)	.08	>.99
Platelet count, mean (SD), x10 ³ /mm ³	306.9 (115.7)	367.5 (137.9)	288.0 (129.2)	357.7 (141.1)	11.0 (-37.4 to 59.4)	.57	>.99
Erythrocyte sedimentation rate, median (IQR), mm	57.0 (23.0 to 89.8)	46.0 (9.0 to 77.0)	60.0 (31.8 to 86.3)	40.0 (16.0 to 65.0)	-0.33 (-12.7 to 12.0)	.63	>.99
Urea, mean (SD), mg/dL	40.1 (20.2)	49.0 (46.8)	37.9 (14.4)	46.6 (50.4)	2.5 (-14.5 to 19.6)	.94	>.99
Parathyroid hormone, mean (SD), pg/mL	49.6 (26.8)	35.0 (19.8)	42.8 (21.6)	36.7 (19.5)	-0.8 (-7.9 to 6.4)	.01	>.99
Phosphorus, mean (SD), mg/dL	3.0 (0.6)	3.5 (0.7)	3.0 (0.8)	3.7 (1.3)	-0.18 (-0.56 to 0.20)	.36	>.99
Total cholesterol, mean (SD), mg/dL	164.8 (43.2)	183.2 (48.7)	164.6 (47.4)	187.1 (50.3)	-5.3 (-22.4 to 11.7)	.19	>.99
Triglycerides, mean (SD), mg/dL	179.3 (75.5)	221.7 (115.3)	192.8 (94.0)	251.9 (129.2)	-29.9 (-73.5 to 13.7)	.28	.42

HDL-cholesterol, mean (SD), mg/dL	34.7 (11.4)	37.5 (11.1)		34.5 (11.1)	37.5 (10.3)		-0.24 (-4.07 to 3.60)	.65	>.99
LDL-cholesterol, mean (SD), mg/dL	101.6 (34.6)	111.9 (37.0)		99.3 (39.3)	112.0 (40.2)		-1.4 (-14.8 to 11.9)	.28	>.99

^a *P* value represents group by time interaction, calculated by Generalized Estimating Equations (GEE) with normal distribution and identity link function with first-order autoregressive correlation matrix.

^b *P* value represents estimated between-group differences, calculated by GEE using Bonferroni's adjustments.

eTable 3. Baseline Demographic and Clinical Characteristics from the patients with 25-hydroxyvitamin D deficiency (< 20 ng/mL).

Characteristics	Vitamin D ₃ group (n = 57)	Placebo group (n = 58)
Age, mean (SD), y	58.3 (14.7)	56.1 (14.3)
Sex, No. (%)		
Male	31 (54.4)	28 (48.3)
Female	26 (45.6)	30 (51.7)
Race, No. (%)		
White	26 (45.6)	34 (58.6)
Pardo	19 (33.3)	15 (25.9)
Black	11 (19.3)	9 (15.5)
Asian	1 (1.8)	0 (0)
Time from symptom onset to enrollment, mean (SD), d,	10.6 (5.7)	10.4 (3.7)
Time from hospital admission to enrollment, mean (SD), d	1.3 (0.9)	1.4 (0.9)
Body mass index, mean (SD), kg/m ²	32.0 (6.8)	31.7 (8.4)
<18.5, No. (%)	0 (0)	2 (3.7)
18.5-24.9, No. (%)	5 (10.0)	8 (14.8)
25.0-29.9, No. (%)	15 (30.0)	18 (33.3)
≥30, No. (%)	30 (60.0)	26 (48.1)
Acute COVID-19 symptoms		
Cough	49 (86.0)	51 (87.9)
Fatigue	46 (80.7)	49 (84.5)
Fever	38 (66.7)	40 (69.0)
Myalgia	32 (56.1)	35 (60.3)
Sore throat	23 (40.4)	13 (22.4)
Runny nose	20 (35.1)	22 (37.9)
Joint pain	19 (33.3)	15 (25.9)
Nasal congestion	15 (26.3)	26 (44.8)
Diarrhea	16 (28.1)	22 (37.9)
Coexisting diseases, No. (%)		
Hypertension	34 (59.6)	28 (48.3)
Diabetes	27 (47.4)	19 (32.8)

Cardiovascular disease	6 (10.5)	8 (13.8)
Characteristics	Vitamin D ₃ group (n = 57)	Placebo group (n = 58)
Rheumatic disease	6 (10.5)	3 (5.2)
Chronic obstructive pulmonary disease	5 (8.8)	5 (8.6)
Asthma	3 (5.3)	2 (3.4)
Chronic kidney disease	1 (1.8)	0 (0.0)
Concomitant medications, No. (%)		
Anticoagulant	51 (89.5)	45 (77.6)
Antibiotic	46 (80.7)	50 (86.2)
Corticosteroids	35 (61.4)	32 (55.2)
Antihypertensive	33 (57.9)	29 (50.0)
Analgesic	23 (40.4)	30 (51.7)
Antiemetic	19 (33.3)	24 (41.4)
Proton pump inhibitor	18 (31.6)	24 (41.4)
Hypoglycemic	12 (21.2)	13 (22.4)
Hypolipidemic	9 (15.5)	9 (15.5)
Thyroid	6 (10.5)	5 (8.6)
Antiviral	2 (3.4)	2 (3.4)
Oxygen supplementation, No. (%)		
No oxygen therapy	11 (19.0)	3 (5.2)
Oxygen therapy	38 (65.5)	52 (89.7)
Non-invasive ventilation	9 (15.5)	3 (5.2)
Ground-glass opacities on computed tomography findings, No. (%)		
< 50%	27 (52.9)	18 (36.7)
≥ 50%	24 (47.1)	31 (63.3)
Laboratory variables		
25-hydroxyvitamin D, mean (SD), ng/mL	12.8 (3.9)	13.9 (4.7)
Total calcium, mean (SD), mg/dL	8.56 (0.50)	8.67 (0.52)
Creatinine, mean (SD), mg/dL	0.84 (0.31)	0.84 (0.27)
C-reactive protein, mean (SD), mg/L	79.2 (73.1)	81.4 (82.7)
D-dimer, mean (SD), ng/mL	2,911 (7,014)	2,044 (4,541)
Haemoglobin, mean (SD), g/L	13.2 (2.3)	12.6 (2.1)

Neutrophils count, mean (SD), $\times 10^3/\text{mm}^3$	5.97 (3.74)	7.55 (3.82)
Lymphocyte count, mean (SD), $\times 10^3/\text{mm}^3$	1.20 (0.53)	1.10 (0.52)
Characteristics	Vitamin D ₃ group (n = 57)	Placebo group (n = 58)
Platelet count, mean (SD), $\times 10^3/\text{mm}^3$	305.0 (129.6)	292.3 (141.9)
Erythrocyte sedimentation rate, mean (SD), mm	62.0 (39.6)	64.4 (40.0)
Gamma globulins, mean (SD), g/L	1.15 (0.44)	1.12 (0.33)
Albumin, mean (SD), g/L	2.97 (0.49)	2.98 (0.45)
Urea, mean (SD), mg/dL	38.6 (19.4)	38.8 (14.9)
Parathyroid hormone, mean (SD), pg/mL	51.6 (29.2)	43.9 (24.4)
Phosphorus, mean (SD), mg/dL	2.97 (0.65)	3.09 (0.73)
Total cholesterol, mean (SD), mg/dL	162.3 (46.0)	169.6 (50.8)
Triglycerides, mean (SD), mg/dL	171.5 (80.3)	201.0 (91.9)
HDL-cholesterol, mean (SD), mg/dL	35.4 (13.0)	32.8 (12.2)
LDL-cholesterol, mean (SD), mg/dL	99.3 (36.9)	104.3 (41.6)