

Table S1 Variations in vitamin C dose in the control and vitamin C groups

Trial year, title	Vitamin C levels (g/day)		
	Participants	Vitamin C group	Control group
Mochalkin 1970, Ascorbic acid in the complex therapy of acute pneumonia (33)	70 in control group, 39 in low vitamin C group and 31 in high vitamin C group	High vitamin C: 0.5 to 1.6 G/day; Low vitamin C: 0.25 to 0.8 G/day	–
Hunt 1994, The clinical effects of vitamin C supplementation in elderly hospitalised patients with acute respiratory infections (32)	28 vitamin C; 29 placebo, Hospitalised for acute bronchitis (n=40) or pneumonia (n=17)	Vitamin C 0.2 G/day	–
Tanaka 2000, Reduction of resuscitation fluid volumes in severely burned patients using ascorbic acid administration: a randomized, prospective study (47)	37 consecutive patients with burns over 30% of their total body surface area who were admitted to the ICU within 2 h after the injury	Intravenous vitamin C (66 mg/kg/h)	–
Flower 2014, Phase I safety trial of intravenous ascorbic acid in patients with severe sepsis (11)	24 patients with severe sepsis, 8 in placebo group, 8 in low ascorbic acid group, 8 in high ascorbic acid group	High vitamin C: 200 mg/kg/24 h Low vitamin C: 50 mg/kg/24 h	5% dextrose/ water
Marik 2017, Hydrocortisone, Vitamin C, and Thiamine for the Treatment of Severe Sepsis and Septic Shock (8)	47 patients in both treatment and control groups	Vitamin C: 1.5 g every 6 h for 4 days or until ICU discharge	–
Kim 2018, Combined vitamin C, hydrocortisone, and thiamine therapy for patients with severe pneumonia who were admitted to the intensive care unit: Propensity score-based analysis of a before-after cohort study (16)	99 patients with severe pneumonia, 53 patients in vitamin C group, 46 patients in control group	Vitamin C: 6 g/day	–

Table S2 Virus strain identified in sputum culture and viral polymerase chain reaction

	Total (n=201) (%)	Vitamin C (n=35) (%)	Non vitamin C (n=166) (%)	P value
Rhinovirus	34 (16.9)	10 (28.6)	24 (14.5)	0.04
Parainfluenza virus	19 (9.5)	2 (5.7)	17 (10.2)	0.41
Influenza virus	66 (32.8)	10 (28.6)	56 (33.7)	0.55
Metapneumovirus	16 (8.0)	1 (2.9)	15 (9.0)	0.22
Respiratory syncytial virus	20 (10.0)	6 (17.1)	14 (8.4)	0.12
Cytomegalovirus	8 (4.0)	3 (8.6)	5 (3.0)	0.13
Corona virus	21 (10.4)	3 (8.6)	18 (10.8)	0.69
Adenovirus	15 (7.5)	5 (14.3)	10 (6.0)	0.09
Herpes simplex virus	9 (4.5)	3 (8.6)	6 (3.6)	0.20
Bocavirus	6 (3.0)	1 (2.9)	5 (3.0)	0.96

Table S3 Virus strain identified in sputum culture and viral polymerase chain reaction in matched patients

	Vitamin C (n=35) (%)	Non vitamin C (n=35) (%)	P value
Rhinovirus	10 (28.6)	4 (11.4)	0.07
Parainfluenza virus	2 (5.7)	5 (14.3)	0.23
Influenza virus	10 (28.6)	8 (22.9)	0.58
Metapneumovirus	1 (2.9)	5 (14.3)	0.09
Respiratory syncytial virus	6 (17.1)	3 (8.6)	0.28
Cytomegalovirus	3 (8.6)	2 (5.7)	0.64
Corona virus	3 (8.6)	3 (8.6)	>0.99
Adenovirus	5 (14.3)	4 (11.4)	0.72
Herpes simplex virus	3 (8.6)	0 (0)	0.08
Bocavirus	1 (2.9)	2 (5.7)	0.56

Table S4 Serial change of SOFA score and renal SOFA score in the matched group during 7 days

	Total (n=70)	Vitamin C (n=35)	Non vitamin C (n=35)	P value
SOFA score				
D1	10.0±3.7	9.7±3.5	10.3±3.8	0.46
D3	9.5±4.1	8.9±3.7	10.2±4.5	0.17
D7	9.2±4.5	8.6±4.8	9.7±4.2	0.37
Renal score (SOFA)				
D1	0.7±1.2	0.7±1.2	0.8±1.1	0.84
D3	0.7±1.0	0.6±1.1	0.7±1.0	0.62
D7	0.7±1.1	0.8±1.1	0.7±1.0	0.60

Data are presented as mean ± standard deviation, unless otherwise indicated. SOFA, sequential organ failure assessment.

References

47. Tanaka H, Matsuda T, Miyagantani Y, et al. Reduction of resuscitation fluid volumes in severely burned patients using ascorbic acid administration: a randomized, prospective study. *Arch Surg* 2000;135:326-31.