

Supplement Table 42. Results of meta-analysis according to micronutrient and antioxidant category in critically ill adults (KQ16)

	Outcome	No. of studies	No. of patients	RR/MD	95% CI	P-value	Heterogeneity (I ² %)
All studies (n=64)	ICU mortality	14	1,170	0.99	0.83 to 1.19	0.92	0
	H mortality	24	5,732	0.97	0.86 to 1.09	0.59	23
	28/30 D mortality	42	10,000	0.82	0.82 to 1.00	0.04	29
	Nosocomial infection	11	4,639	0.95	0.88 to 1.02	0.15	0
	Blood stream infection	4	1,411	11.28	0.97 to 1.69	0.08	0
	Pneumonia/VAP	11	1,791	0.61	0.46 to 0.81	<0.001	23
	Acute kidney injury	17	3,131	0.92	0.81 to 1.04	0.20	9
	Renal replacement therapy	12	2,825	0.9	0.66 to 1.8	0.97	27
	ICU-LOS	47	7,726	-0.74	-1.27 to -0.21	0.006	86
	H -LOS	38	7,826	-0.68	-1.38 to 0.02	0.06	70
	MV days	21	2,645	-0.83	-1.72 to 0.07	0.07	87
	Delta SOFA	15	2,563	-1.17	-1.66 to -0.69	<0.001	91
Vit. C (n=25)	ICU mortality	5	304	00.91	0.61 to 1.34	0.62	6
	H mortality	8	2,025	1.03	0.75 to 1.40	0.88	17
	28/30 D mortality	20	3,664	00.82	0.68 to 1.00	0.04	40
	Nosocomial infection	3	91	0.57	0.25 to 1.32	0.19	0
	Pneumonia/VAP	4	290	0.42	0.26 to 0.69	< 0.001	0
	Acute kidney injury	10	1,484	0.83	0.62 to 1.11	0.21	20
	Renal replacement therapy	3	180	3.59	1.15 to 11.27	0.03	0
	ICU-LOS	16	998	-0.81	-1.62 to -0.00	0.05	75
	H -LOS	12	650	0.42	-0.85 to 1.69	0.52	39
	MV days	6	406	-2.39	-4.29 to -0.30	0.02	92
	Delta SOFA	8	646	-1.35	-2.16 to -0.55	0.001	91
Selenium (n=11)	ICU mortality	3	553	0.99	0.78 to 1.26	0.94	0
	H mortality	4	422	0.77	0.54 to 1.10	0.15	0
	28/30 D mortality	6	3,033	1.03	0.87 to 1.22	0.73	0
	Nosocomial infection	4	3,005	0.92	0.84 to 1.01	0.09	0
	Pneumonia/VAP	3	105	0.70	0.35 to 1.36	0.29	41
	Acute kidney injury	4	516	0.83	0.53 to 1.30	0.42	0
	ICU-LOS	7	2,220	-0.68	-1.38 to 0.02	0.06	8
	H -LOS	8	3,623	-1.28	-2.88 to 0.32	0.12	59
	MV days	5	258	-1.11	-2.81 to 0.6	0.2	0
	Delta SOFA	2	524	-0.68	-2.34 to 0.98	0.42	89
Vit D (n=5)	H mortality	3	1,250	1.00	0.66 to 1.52	0.99	55
	28/30 D mortality	4	1,372	0.92	0.59 to 1.45	0.72	56
	Nosocomial infection	2	261	1.14	0.87 to 1.50	0.33	42
	ICU-LOS	4	400	0.94	-2.61 to 4.50	0.60	81
	H -LOS	5	1,478	0.07	-3.56 to 3.70	0.97	89
	MV days	3	333	1.05	-2.40 to 4.50	0.55	85
Thiamine (n=7)	H mortality	4	316	0.93	0.67 to 1.29	0.66	37
	28/30 D mortality	2	126	1.09	0.82 to 1.44	0.56	0
	Acute kidney injury	2	152	0.74	0.53 to 1.02	0.06	0
	Renal replacement therapy	3	228	0.35	0.12 to 1.03	0.06	32
	ICU-LOS	3	199	-0.09	-1.04 to 0.87	0.86	0
	H -LOS	2	134	0.26	-0.99 to 1.51	0.69	0
	Delta SOFA	2	115	0.05	-1.17 to 1.27	0.94	0
NAC (n=5)	28/30 D mortality	2	232	0.84	0.59 to 1.19	0.33	0
	ICU-LOS	4	331	-0.40	-1.24 to 0.44	0.35	2
	H -LOS	3	192	-2.14	-4.11 to -0.16	0.03	0
	MV days	2	179	4.54	-0.95 to 10.03	0.11	0
Others (n=11)	ICU mortality	2	92	0.66	0.27 to 1.62	0.37	0
	H mortality	4	1,409	0.88	0.48 to 1.61	0.67	52
	28/30 D mortality	7	1,575	0.84	0.68 to 1.05	0.13	44
	Blood stream infection	2	1,282	1.13	0.82 to 1.57	0.44	0
	Renal replacement therapy	2	1,238	1.12	0.82 to 1.53	0.48	0
	ICU-LOS	9	1,810	-1.07	-2.28 to 0.13	0.08	93
	H -LOS	7	1,661	-1.16	-2.52 to 0.20	0.09	80
	MV days	3	155	-1.90	-6.32 to 2.53	0.40	92
	Delta SOFA	3	1,278	-0.42	-0.63 to 0.20	<0.001	92

RR, risk ratio; MD, mean difference; CI, confidence interval; ICU, intensive care unit; H, hospital; D, days; VAP, ventilator associated pneumonia; LOS, length of stay; MV, mechanical ventilation; SOFA, sequential organ failure assessment; Vit., vitamin; NAC, n-acetylcysteine.

