

Table 1: Participant baseline characteristics.

Parameter	Enrolled cohort (n=40)	Survivors (n=26)	QoL sub-group (n=18)
Age (y)	68 (61, 75)	65 (57, 71)	65 (60, 71)
Sex (male)	27 (67)	17 (65)	11 (61)
Ethnicity:			
NZ European	34 (85)	21 (81)	16 (89)
Māori	4 (10)	3 (12)	2 (11)
Pacific peoples	1 (3)	1 (4)	0 (0)
Other	2 (5)	1 (4)	0 (0)
Weight (kg)	80 (69, 98)	85 (72, 101)	94 (76, 107)
Sepsis source:			
Abdominal	14 (35)	11 (42)	9 (50)
Pulmonary	9 (23)	3 (12)	2 (9)
Skin/soft tissue	7 (18)	6 (23)	4 (22)
Blood	7 (18)	3 (12)	3 (16)
Other/unknown	6 (16)	4 (15)	1 (6)
SAPS2	50 (41, 58)	46 (39, 56)	49 (38, 58)
APACHE-III	84 (73, 97)	77 (68, 93)	85 (73, 95)
SOFA score	9.0 (7.0, 10)	9.0 (6.8, 10)	9.0 (6.8, 10)
ICU LOS	5.2 (2.7, 9.4)	4.5 (2.5, 9.8)	3.9 (2.4, 8.4)
Hospital LOS	13 (8, 31)	16 (9, 35)	14 (9, 29)
Number with comorbidities	9 (23)	7 (27)	5 (28)

Data represent n (%) or median (Q1, Q3).

APACHE = acute physiology and chronic health evaluation; ICU = intensive care unit; LOS = length of stay; QoL = quality of life; SOFA = sequential organ failure assessment; SAPS = simplified acute physiology score.

Table 2: SF-36 findings for the total QoL cohort.

	Hospital discharge	30 days	90 days	180 days	P-value	New Zealand norms
	(n=9)	(n=18)	(n=17)	(n=18)		(n=12,378)
Physical function (PF)	31 (13, 49)	52 (41, 64)	60 (46, 75)	70 (57, 84)	0.001	86 (22)
Role—physical (RP)	3 (-4, 9)	19 (3, 36)	43 (23, 62)	61 (42, 80)	<0.001	86 (23)
Bodily pain (BP)	47 (14, 79)	69 (54, 84)	65 (48, 81)	76 (61, 92)	0.1	75 (24)
General health (GH)	38 (21, 55)	47 (34, 60)	59 (46, 71)	62 (51, 73)	0.002	75 (20)
Vitality (VT)	39 (20, 59)	51 (42, 61)	58 (46, 70)	67 (56, 78)	0.01	64 (18)
Social functioning (SF)	40 (15, 66)	55 (42, 68)	78 (67, 94)	87 (74, 100)	<0.001	88 (21)
Role—emotional (RE)	59 (21, 97)	67 (46, 87)	78 (61, 96)	91 (81, 100)	0.1	94 (15)
Mental health (MH)	67 (50, 84)	78 (68, 88)	83 (73, 92)	84 (75, 92)	0.1	82 (13)

Data represent mean and 95% CI. P-value is for trend over time (mixed effects model). New Zealand norms were from Frieling et al.²⁷ and represent mean (SD).

QoL = quality of life; SF-36 = Short Form-36.

Table 3: Summary T-scores of self-reported physical and mental health measures for the SF-36v2.

	Hospital discharge	30 days	90 days	180 days	P-value	Population norm
	(n=9)	(n=18)	(n=17)	(n=18)		
Physical component summary (PCS)	31 (8)	37 (10)	41 (11)	45 (11)	<0.001	50 (10)
Mental component summary (MCS)	38 (12)	43 (10)	47 (11)	52 (10)	0.006	50 (10)

Data represent mean and SD. P value is for trend over time (mixed effects model).

SF-36v2 = Short Form-36, version 2.

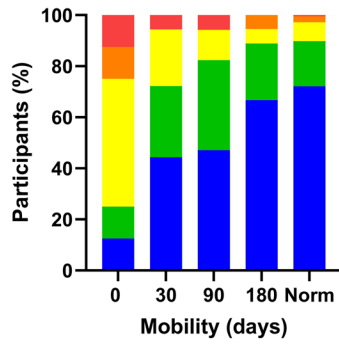
Table 4: Participant summary of self-rated physical and mental health measures as assessed by the EQ-5D.

	Hospital discharge	30 days	90 days	180 days	P-value	New Zealand norms
	(n=8)	(n=18)	(n=17)	(n=18)		(n=2,468)
Mobility	88	56	53	33	0.03	28
Self-care	75	28	6	11	0.01	9
Usual activities	100	67	35	28	0.004	30
Pain/discomfort	75	59	41	39	0.1	62
Anxiety/ depression	75	33	33	28	0.08	46

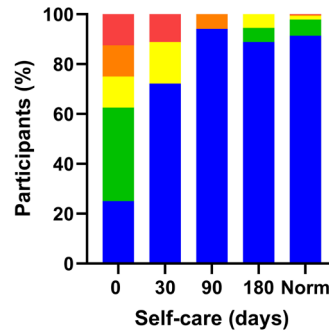
Data represent percentage (%) with physical and mental health issues. P-value is for trend over time (mixed effects model). New Zealand norms were from Sullivan et al.³³
EQ-5D = EuroQol 5 Dimension.

Figure 1: The proportion of participants with health problems for A) mobility, B) self-care, C) usual activities, D) pain/discomfort and E) anxiety/depression over 6-month period post-discharge. Problems were graded as none (blue), slight (green), moderate (yellow), severe (orange) or extreme (red). “Norm” is New Zealand norm values from Sullivan et al.³³

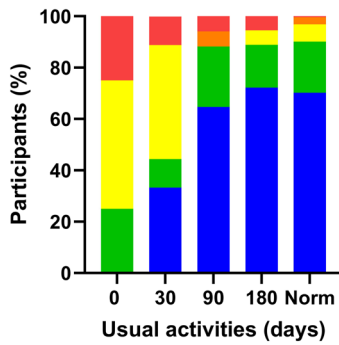
A



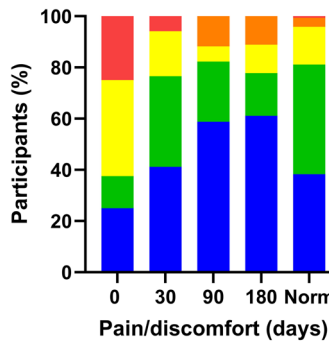
B



C



D



E

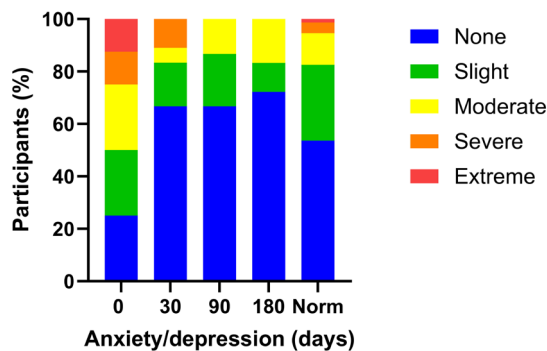


Table 5: The EQ-5D index and VAS scores.

	Hospital discharge	30 days	90 days	180 days	P-value	New Zealand norms
	(n=8)	(n=18)	(n=17)	(n=18)		(n=2,468)
EQ-5D index (%)	37 (11, 63)	61 (47, 75)	70 (53, 87)	76 (60, 91)	0.04	85 (24)
VAS (%)	51 (32, 69)	60 (47, 72)	71 (59, 82)	80 (72, 88)	0.003	75 (18)

Data represent mean and 95% CI. P value is for trend over time (mixed effects model). New Zealand norms were from Sullivan et al.³³ and represent mean (SD).

EQ-5D = EuroQol 5 Dimension; VAS = visual analogue scale.

Figure 2: Effect of vitamin C intervention on physical and mental quality of life and cognitive function post-hospital discharge. A) The physical component summary (PCS) comprised physical function (PF), role—physical (RP), bodily pain (BP) and aspects of general health (GH). B) The mental component summary (MCS) comprised general health (GH), vitality (VT), social functioning (SF), role—emotional (RE) and mental health (MH). C) EQ-5D index comprising mobility, self-care, usual activities, pain/discomfort and anxiety depression (converted to percentages). D) EQ-5D visual analogue scale (VAS). E) Cognitive function (COBRA) scores. Grey bars = placebo (n=7–10), orange bars = intervention (n=8). Day 0 data are not shown for the vitamin C arm as n=2. Bars represent median and 25th and 75th percentiles, and error bars the range.

