

These appendices were part of the submitted manuscript and have been peer reviewed. They are posted as supplied by the authors.

Appendix 1.

Autonomic Nerve Dysfunction Scoring

ANX 3.0 Autonomic Nervous System monitoring technology (ANSAR Group, Philadelphia, USA) was used to assess autonomic nerve function under the specific conditions described in the Methods.

Variation of heart rate (R-R interval) during deep breathing (E/I ratio), immediate heart rate response to standing from the lying position (orthostatic 30:15 ratio) and the fall in systolic blood pressure (30s) in response to standing were scored as abnormal (2), borderline (1) or normal (0), using published age-adjusted reference values.¹ Scores were added together to obtain a 'total score'. A score ≥ 3 was considered to be indicative of autonomic nerve dysfunction.²

References:

1. Piha SJ. Cardiovascular autonomic reflex tests: Normal responses and age related reference values. *Clin Physiol.* 1991;11:277–90.
2. Trahair LG, Kimber TE, Flabouris K, Horowitz M, Jones KL. Gastric emptying, postprandial blood pressure, glycaemia and splanchnic flow in Parkinson's disease. *World J Gastroenterol.* 2016;22(20):4860-4867.

Appendix 3.

Table S1 Characteristics of the 35 participants completing the study at 3 months after ICU discharge

| Characteristic | Older survivors followed up at 3 months after ICU discharge (n = 35) |
|--|--|
| Age on study day (years); mean (SD) | 73 (5) |
| Sex (M); n (%) | 28 (80) |
| Body mass index (kg/m ²); mean (SD) | 29 (7) |
| ICU diagnostic group; n (%) | |
| Cardiac | 9 (26) |
| Infective | 8 (23) |
| Neurological | 5 (14) |
| Trauma | 5 (14) |
| Surgical | 2 (6) |
| Vascular | 5 (6) |
| Endocrine (other than diabetes) | 1 (3) |
| APACHE II score; mean (SD) | 17 (5) |
| Duration of ICU admission (days); median [IQR] | 5 [3, 6] |
| Duration of hospital admission (days); median [IQR] | 17 [10, 22] |
| Mechanically ventilated; n (%) | 15 (43) |
| Mechanically ventilated (hours); median [IQR] | 22 [12-51] |
| Vasoconstrictor/inotrope; n (%) | 18 (51) |
| Received renal replacement therapy during ICU admission; n (%) | 0 (0) |
| Received tube enteral feeding during ICU admission; n (%) | 7 (20) |
| Diagnosed with hypertension at 3 months; n (%) | 16 (46) |
| Antihypertensives and diuretics at ICU discharge; n (%) | |
| Beta blocker | 15 (43) |
| Angiotensin converting enzyme inhibitor | 9 (39) |
| Spironolactone | 4 (11) |
| Frusemide | 6 (17) |
| Angiotensin II receptor blocker | 6 (17) |
| Calcium channel blocker | 4 (11) |
| Receiving insulin at 3 months; n (%) | 2 (6) |
| Patients with known type 2 diabetes at baseline; n (%) | 11 (31) |

n = number, SD = standard deviation, M = male, ICU = intensive care unit, APACHE = acute physiology and chronic health evaluation, IQR = interquartile range

Table S2 Blood pressure and heart rate changes in the 21 participants following ingestion of the glucose drink at 12 months after ICU discharge

| Parameter | Value; mean (SD) |
|--|--------------------|
| Baseline lying blood pressure (mmHg) | 130 (16) / 74 (13) |
| Baseline standing blood pressure (mmHg) | 126 (23) / 71 (14) |
| Baseline seated blood pressure (mmHg) | 122 (17) / 68 (11) |
| Maximal postprandial systolic blood pressure nadir (mmHg) | -20 (12) |
| Maximal postprandial diastolic blood pressure nadir (mmHg) | -15 (6) |
| Time of postprandial systolic blood pressure nadir (mins) | 122 (76) |
| Time of postprandial diastolic blood pressure nadir (mins) | 113 (69) |
| Baseline lying heart rate (beats per minute) | 68 (12) |
| Baseline standing heart rate (beats per minute) | 74 (13) |
| Baseline seated heart rate (beats per minute) | 65 (12) |
| Maximal postprandial heart rate peak (beats per minute) | +14 (8) |
| Time of postprandial heart rate peak (mins) | 57 (42) |

SD = standard deviation, mmHg = millimetres of mercury, mins = minutes during the study

Table S3 Health-related quality of life scores quantified using the EQ-5D-5L instrument

| Presence of EQ-5D-5L Dimension Issue | Older survivors ≥ 65 years 3 months post-ICU n=35 | Older survivors ≥ 65 years 12 months post-ICU n=32 | General population survey 65-74 years n=346 [‡] | General population survey 75+ years n=226 [‡] |
|--|--|---|--|--|
| Mobility, n (%) | 15 (43) | 16 (50) | 157 (45) | 135 (60) |
| Self-Care, n (%) | 3 (9) | 2 (6) | 32 (9) | 29 (13) |
| Usual Activities, n (%) | 12 (34) | 12 (38) | 96 (28) | 98 (43) |
| Pain/Discomfort, n (%) | 23 (66) | 15 (47) | 207 (60) | 159 (70) |
| Anxiety/Depression, n (%) | 15 (43) | 11 (34) | 83 (24) | 61 (27) |
| Health status VAS, median [IQR] or mean (SD) | 75 [70-90] | 80 [60-91] | 78.6 (17.1) | 72.7 (17.7) |

VAS = visual analogue scale, IQR = interquartile range

EQ-5D-5L data presented for when a score other than Level 1 (no problems) was reported by participants for all five dimensions. The EQ VAS is reported as median.

[‡]General population values are based on South Australian data from: McCaffrey N, Kaambwa B, Currow DC, Ratcliffe J. Health-related quality of life measured using the EQ-5D-5L: South Australian population norms. *Health Qual Life Outcomes*. 2016;14:133.