Supplementary table 1: 2x2 table of fully combined biomarker approaches for all study outcomes. Subgroup size, subgroup incidence as well as subgroup incidence percentage are reported. Third quartile cutoffs of predictor variables were used to determine 'low' and 'high' levels respectively. Cut-off for low/high day 1 cDPP3 was 99.0 ng/mL. Cut-off for low/high day 2 cDPP3 was 44.6 ng/mL. Cut-off for low/high day 1 bio-ADM was 27.4 pg/mL. Cut-off for low/high day 2 bio-ADM was 50.6 pg/mL. Cut-off for low/high ECC time was 187.5 minutes. Cut-off for low/high day 2 Lactate was 2.2 mmol/L. cDPP3 = circulating Dipeptidyl Peptidase 3, bio-ADM = bioactive Adrenomedullin, ECC time = Extracorporeal circulation time.

Prolonged vasopressor dependency

	Low cDPP3 day 2	High cDPP3 day 2
Low cDPP3 day 1	11/110 (10.0%)	5/17 (29.4%)
High cDPP3 day 1	4/19 (21.1%)	6/27 (22.2%)

	Low bio-ADM day 2	High bio-ADM day 2
Low bio-ADM day 1	6/118 (5.1%)	8/18 (44.4%)
High bio-ADM day 1	2/15 (13.3%)	10/22 (45.5%)

	Low bio-ADM day 2	High bio-ADM day 2
Low cDPP3 day 1	4/100 (4.0%)	12/27 (44.4%)
High cDPP3 day 1	4/33 (12.1%)	6/13 (46.2%)

	Low cDPP3 day 2	High cDPP3 day 2
Low ECC time	7/101 (6.9%)	5/31 (16.1%)
High ECC time	8/28 (28.6%)	6/13 (46.2%)

	Low bio-ADM day 2	High bio-ADM day 2
Low ECC time	3/111 (2.7%)	9/21 (42.9%)
High ECC time	5/22 (22.7%)	9/19 (47.4%)

	Low cDPP3 day 2	High cDPP3 day 2
Low Lactate day 2	8/97 (8.2%)	7/33 (21.2%)
High Lactate day 2	7/29 (24.1%)	4/11 (36.4%)

	Low bio-ADM day 2	High bio-ADM day 2
Low Lactate day 2	4/106 (3.8%)	11/24 (45.8%)
High Lactate day 2	4/24 (16.7%)	7/16 (43.8%)

Acute kidney injury

	Low cDPP3 day 2	High cDPP3 day 2
Low cDPP3 day 1	27/110 (24.5%)	9/19 (47.5%)
High cDPP3 day 1	5/19 (26.3%)	10/27 (37.0%)

	Low bio-ADM day 2	High bio-ADM day 2
Low bio-ADM day 1	18/119 (15.1%)	15/29 (78.9%)
High bio-ADM day 1	4/15 (26.7%)	14/22 (63.6%)

	Low bio-ADM day 2	High bio-ADM day 2
Low cDPP3 day 1	16/101 (15.8%)	20/28 (71.4%)
High cDPP3 day 1	6/33 (18.2%)	9/13 (69.2%)

	Low cDPP3 day 2	High cDPP3 day 2
Low ECC time	14/101 (13.9%)	7/32 (21.9%)
High ECC time	18/28 (64.3%)	12/14 (85.7%)

	Low bio-ADM day 2	High bio-ADM day 2
Low ECC time	8/111 (7.2%)	13/22 (59.1%)
High ECC time	14/23 (60.9%)	16/19 (84.2%)

	Low cDPP3 day 2	High cDPP3 day 2
Low Lactate day 2	22/97 (22.7%)	11/33 (33.3%)
High Lactate day 2	10/29 (34.5%)	8/13 (61.5%)

	Low bio-ADM day 2	High bio-ADM day 2
Low Lactate day 2	18/106 (17.0%)	15/24 (62.5%)
High Lactate day 2	4/25 (16%)	14/17 (82.4%)

Prolonged ICU Stay

	Low cDPP3 day 2	High cDPP3 day 2
Low cDPP3 day 1	23/110 (20.9%)	9/19 (47.4%)
High cDPP3 day 1	5/19 (26.3%)	10/27 (37.0%)

	Low bio-ADM day 2	High bio-ADM day 2
Low bio-ADM day 1	14/119 (11.8%)	12/19 (63.2%)
High bio-ADM day 1	5/15 (33.3%)	16/22 (72.7%)

	Low bio-ADM day 2	High bio-ADM day 2
Low cDPP3 day 1	13/101 (12.9%)	19/28 (67.9%)
High cDPP3 day 1	6/33 (18.2%)	9/13 (69.2%)

	Low cDPP3 day 2	High cDPP3 day 2
Low ECC time	13/101 (12.9%)	11/32 (34.4%)
High ECC time	15/28 (53.6%)	8/14 (57.1%)

	Low bio-ADM day 2	High bio-ADM day 2
Low ECC time	12/111 (10.8%)	12/22 (54.5%)
High ECC time	7/23 (30.4%)	16/19 (84.2%)

	Low cDPP3 day 2	High cDPP3 day 2
Low Lactate day 2	18/97 (18.6%)	11/33 (33.3%)
High Lactate day 2	10/29 (34.5%)	8/13 (61.5%)

	Low bio-ADM day 2	High bio-ADM day 2
Low Lactate day 2	14/106 (13.2%)	15/24 (62.5%)
High Lactate day 2	5/25 (20%)	13/17 (76.5%)

Prolonged hospital stay

	Low cDPP3 day 2	High cDPP3 day 2
Low cDPP3 day 1	44/110 (40.0%)	10/19 (52.6%)
High cDPP3 day 1	10/19 (52.6%)	14/27 (51.9%)

	Low bio-ADM day 2	High bio-ADM day 2
Low bio-ADM day 1	39/119 (32.8%)	17/19 (89.5%)
High bio-ADM day 1	7/15 (46.7%)	15/22 (68.2%)

	Low bio-ADM day 2	High bio-ADM day 2
Low cDPP3 day 1	30/101 (29.7%)	24/28 (85.7%)
High cDPP3 day 1	16/33 (48.5%)	8/13 (61.5%)

	Low cDPP3 day 2	High cDPP3 day 2
Low ECC time	34/101 (33.7%)	15/32 (46.9%)
High ECC time	20/28 (71.4%)	9/14 (64.3%)

	Low bio-ADM day 2	High bio-ADM day 2
Low ECC time	32/111 (28.8%)	17/22 (77.3%)
High ECC time	14/23 (60.9%)	15/19 (78.9%)

	Low cDPP3 day 2	High cDPP3 day 2
Low Lactate day 2	37/97 (38.1%)	12/33 (36.4%)
High Lactate day 2	16/29 (55.2%)	12/13 (92.3%)

	Low bio-ADM day 2	High bio-ADM day 2
Low Lactate day 2	33/106 (31.1%)	16/24 (56.7%)
High Lactate day 2	12/25 (48%)	16/17 (94.1%)