

Table 1: Balance comparison between control patients that got CVC and those that did not receive CVC before and after matching, select covariates.

	Before Matching			After Matching		
	CVC	Non-CVC	p-value	CVC	Non-CVC	p-value
Age	65.6	63.0	0.0	64.3	65.2	0.6
Apache Score	17.9	18.1	0.8	16.7	17.4	0.3
SOFA Score	4.3	4.2	0.8	4.0	4.0	0.8
MEDS Score	8.0	7.8	0.5	7.8	7.9	0.8
Blood Lactate	4.8	5.3	0.1	4.5	4.6	0.8
Systolic Blood Pressure (SBP)	97.0	97.9	0.7	97.4	95.1	0.3
Mean Arterial Pressure (MAP)	66.0	65.8	0.8	66.4	65.7	0.3
Male	0.60	0.57	0.56	0.55	0.57	0.69
Liver Severe Condition (0/1)	0.0	0.0	0.1	0.0	0.0	1.0
Renal Severe Condition (0/1)	0.0	0.0	0.6	0.0	0.0	0.6
Immuno Severe Condition (0/1)	0.1	0.1	0.5	0.1	0.1	0.6
Resp Severe Condition (0/1)	0.1	0.1	0.1	0.1	0.1	0.5
Cardio Severe Condition (0/1)	0.0	0.0	0.8	0.0	0.0	0.8
Fluids Pre-Hospitalization	100.9	125.5	0.3	107.2	122.7	0.6
Fluids Pre-Randomization	1862.2	1805.2	0.5	1751.6	1794.3	0.7
Supplemental Oxygen	0.5	0.5	0.5	0.5	0.5	0.8
Time from ED to Rand	2.9	2.7	0.0	2.8	2.9	0.7
Direct ICU to ED	0.7	0.7	0.4	0.5	0.9	0.0
Blood Products	14.1	10.8	0.7	5.0	8.1	0.7

Table 2: Unadjusted Effect of CVC Insertion on 90-day Endpoints in the Control Arm.

	CVC	non-CVC	Difference* [95% CI]	<i>p</i> -value
90 Day Mortality	109	72	11.00	0.003
No. (%)	(34.60)	(23.61)	[3.58, 18.41]	
No. patients	315	305		
LOS	14.02	9.23	4.60	<0.001
Median (IQR)	(18.51)	(10.33)	[2.39, 6.72]	

Note: *Refers to risk difference in percentages for mortality and difference in m-estimates for LOS.

Table 3: Adjusted Effect of CVC Insertion on 90-day Endpoints in the Control Arm.

	CVC	non-CVC	Difference* [95% CI]	<i>p</i> -value
90 Day Mortality	55	53	0.72	1
No. (%)	(26.96)	(26.24)	[-8.96, 8.96]	
No. patients	204	204		
LOS	15.19	10.17	5.02	<0.001
Median (IQR)	(19.81)	(10.96)	[2.15, 8.21]	

Note: *Refers to risk difference in percentages for mortality and difference in m-estimates for LOS.

Table 4: Adjusted Effect for 90-day Endpoints Between Treated Patients and Control Patients that Received CVC.

	Treated	CVC-Control Group	Difference* [95% CI]	<i>p</i> -value
90 Day Mortality No. (%) No. patients	53 (26.1) 204	55 (26.9) 204	-0.85 [-9.8, 7.9]	0.91
90 Day LOS Median (IQR)	10.71 (15.72)	7.09 (19.81)	3.62 [-0.13, 7.21]	0.03

Note: *Refers to risk difference in percentages for mortality and difference in m-estimates for LOS.

A Appendix

Balance Tables

Table 5: Balance produced by ProMISe trial, select covariates

	Treated Mean	Control Mean	Std. Diff	p-value
Age	66.42	0.14	0.01	
Apache Score	18.70	0.10	0.08	
SOFA Score	4.21	-0.02	0.66	
MEDS Score	7.99	0.03	0.63	
Blood Lactate	5.16	0.02	0.67	
Systolic Blood Pressure (SBP)	99.84	0.10	0.09	
Mean Arterial Pressure (MAP)	66.72	0.11	0.05	
Male	0.57	-0.03	0.55	
Liver Severe Cond	0.02	0.00	1.00	
Renal Severe Cond	0.01	0.02	0.70	
Immuno Severe Cond	0.13	0.07	0.22	
Resp Severe Cond	0.15	0.06	0.32	
Cardio Severe Cond	0.04	0.05	0.41	
Fluids Pre Hosp	95.87	-0.06	0.25	
Fluids Pre Rand	1790.50	-0.04	0.48	
Supp Oxygen	0.52	-0.01	0.93	
Time from ED to Rand	2.70	-0.07	0.24	
Direct ICU to ED	0.67	-0.03	0.66	
Blood Products	5.14	-0.08	0.15	
Blood Lactate Miss	0.07	0.04	0.43	
SBP Miss	0.06	-0.03	0.57	
MAP Miss	0.83	0.07	0.20	
Fluid PH Miss	0.01	0.00	1.00	
Fluid PR Miss	0.02	0.01	0.82	
Oxygen Miss	0.14	0.01	0.86	

Table 6: Balance comparison between control patients that got CVC and those that did not receive CVC before matching

	Mis	Min	Max	Mean T	Mean C	Std Dif	P-val
Age	0.00	18.00	95.00	65.64	62.96	0.17	0.03
Apache Score	0.00	3.00	42.00	17.92	18.09	-0.03	0.75
SOFA Score	0.00	0.00	14.00	4.30	4.24	0.03	0.76
MEDS Score	0.00	0.00	18.00	7.98	7.81	0.05	0.52
Blood Lactate	0.00	0.50	23.00	4.83	5.34	-0.15	0.06
Systolic Blood Pressure (SBP)	0.00	0.00	204.00	97.03	97.87	-0.03	0.67
Mean Arterial Pressure (MAP)	0.00	0.00	124.00	65.96	65.83	0.02	0.83
Male	0.00	0.00	1.00	0.60	0.57	0.05	0.56
Liver Severe Cond	0.00	0.00	1.00	0.01	0.03	-0.13	0.12
Renal Severe Cond	0.00	0.00	1.00	0.01	0.00	0.04	0.58
Immuno Severe Cond	0.00	0.00	1.00	0.12	0.10	0.05	0.54
Resp Severe Cond	0.00	0.00	1.00	0.15	0.10	0.15	0.06
Cardio Severe Cond	0.00	0.00	1.00	0.03	0.03	-0.02	0.76
Fluids Pre Hosp	0.00	0.00	3000.00	100.87	125.50	-0.09	0.29
Fluids Pre Rand	0.00	0.00	7500.00	1862.21	1805.24	0.05	0.53
Supp Oxygen	0.00	0.21	1.00	0.53	0.52	0.06	0.50
Time from ED to Rand	0.00	0.20	7.63	2.90	2.67	0.17	0.04
Direct ICU to ED	0.00	0.00	1.00	0.70	0.67	0.08	0.38
Blood Products	0.00	0.00	1270.00	14.06	10.75	0.03	0.70
Blood Lactate Miss	0.00	0.00	1.00	0.07	0.05	0.08	0.29
SBP Miss	0.00	0.00	1.00	0.07	0.07	-0.01	0.91
MAP Miss	0.00	0.00	1.00	0.80	0.80	0.01	0.92
Fluid PH Miss	0.00	0.00	1.00	0.02	0.01	0.13	0.10
Fluid PR Miss	0.00	0.00	1.00	0.02	0.01	0.10	0.22
Oxygen Miss	0.00	0.00	1.00	0.11	0.16	-0.13	0.12

Table 7: Balance comparison between control patients that got CVC and those that did not receive CVC after matching

	Treated Mean	Control Mean	Std. Diff	p-value
Age	65.19	64.92	0.02	0.86
Apache Score	17.36	16.73	0.10	0.31
SOFA Score	4.01	3.96	0.02	0.80
MEDS Score	7.88	7.84	0.01	0.91
Blood Lactate	4.63	4.68	-0.02	0.86
Systolic Blood Pressure (SBP)	95.09	97.27	-0.09	0.33
Mean Arterial Pressure (MAP)	65.71	66.20	-0.07	0.42
Male	0.57	0.55	0.04	0.69
Liver Severe Cond	0.01	0.01	0.00	1.00
Renal Severe Cond	0.01	0.00	0.13	0.16
Immuno Severe Cond	0.11	0.13	-0.06	0.55
Resp Severe Cond	0.11	0.13	-0.06	0.54
Cardio Severe Cond	0.03	0.02	0.05	0.56
Fluids Pre Hosp	122.67	108.06	0.06	0.58
Fluids Pre Rand	1794.35	1792.67	0.00	0.99
Supp Oxygen	0.51	0.50	0.03	0.73
Time from ED to Rand	2.89	2.82	0.06	0.59
Direct ICU to ED	0.91	0.63	0.73	0.00
Blood Products	8.13	1.52	0.10	0.20
Blood Lactate Miss	0.07	0.08	-0.04	0.71
SBP Miss	0.09	0.06	0.11	0.26
MAP Miss	0.80	0.83	-0.08	0.45
Fluid PH Miss	0.01	0.00	0.05	0.56
Fluid PR Miss	0.02	0.02	0.00	1.00
Oxygen Miss	0.15	0.16	-0.01	0.89