

Table 1: Results for a survival outcome and restricted mean survival time in a hospitalized population.

Covariate(s)	N	Effect size	P(Reject $H_0$ )	MSE	Bias	Var.	Rel. eff.
Age and supplemental O2	250	0	0.06	0.31	0.02	0.31	0.87
All original covariates	250	0	0.06	0.31	0.03	0.31	0.87
Supplemental O2	250	0	0.06	0.32	0.02	0.32	0.89
All new covariates	250	0	0.04	0.33	0.03	0.33	0.91
X-ray bilat. infiltrates	250	0	0.05	0.34	0.03	0.34	0.95
Age	250	0	0.05	0.35	0.02	0.35	0.98
Sex	250	0	0.04	0.35	0.02	0.35	0.98
No. symptoms	250	0	0.05	0.36	0.02	0.36	0.99
Smoking status	250	0	0.05	0.36	0.02	0.36	1.00
No. comorbid	250	0	0.05	0.36	0.02	0.36	1.00
BMI	250	0	0.05	0.36	0.02	0.36	1.00
Unadjusted	250	0	0.05	0.36	0.02	0.36	1.00
LASSO, all orig. covariates	250	0	0.03	0.37	0.05	0.37	1.04
LASSO, all new covariates	250	0	0.04	0.37	0.02	0.37	1.04
All original covariates	500	0	0.06	0.17	-0.01	0.17	0.91
Supplemental O2	500	0	0.06	0.17	-0.01	0.17	0.91
Age and supplemental O2	500	0	0.06	0.17	-0.01	0.17	0.91
All new covariates	500	0	0.06	0.17	-0.01	0.17	0.92
X-ray bilat. infiltrates	500	0	0.05	0.18	-0.01	0.18	0.96
Sex	500	0	0.04	0.18	-0.01	0.18	0.97
Age	500	0	0.05	0.18	-0.01	0.18	0.98
No. comorbid	500	0	0.05	0.18	-0.01	0.18	0.99
No. symptoms	500	0	0.05	0.18	-0.01	0.18	0.99
BMI	500	0	0.05	0.19	-0.01	0.19	0.99
Smoking status	500	0	0.06	0.19	-0.01	0.19	1.00
Unadjusted	500	0	0.05	0.19	-0.01	0.19	1.00
LASSO, all orig. covariates	500	0	0.03	0.19	-0.01	0.19	1.01
LASSO, all new covariates	500	0	0.04	0.19	-0.02	0.19	1.02
All original covariates	1500	0	0.06	0.06	0.00	0.06	0.85
All new covariates	1500	0	0.06	0.06	0.00	0.06	0.86
Age and supplemental O2	1500	0	0.06	0.06	0.00	0.06	0.86
Supplemental O2	1500	0	0.06	0.06	0.00	0.06	0.87
X-ray bilat. infiltrates	1500	0	0.06	0.06	0.00	0.06	0.93
LASSO, all new covariates	1500	0	0.05	0.06	-0.01	0.06	0.98
Age	1500	0	0.05	0.06	0.00	0.06	0.98
Sex	1500	0	0.06	0.06	0.00	0.06	0.98
BMI	1500	0	0.06	0.07	0.00	0.07	0.99
No. comorbid	1500	0	0.06	0.07	0.00	0.07	0.99
Smoking status	1500	0	0.05	0.07	0.00	0.07	0.99
No. symptoms	1500	0	0.05	0.07	0.00	0.07	0.99
Unadjusted	1500	0	0.05	0.07	0.00	0.07	1.00
LASSO, all orig. covariates	1500	0	0.05	0.07	-0.02	0.07	1.01

Table 2: Results for a survival outcome and restricted mean survival time in a hospitalized population.

Covariate(s)	N	Effect size	P(Reject $H_0$ )	MSE	Bias	Var.	Rel. eff.
Age and supplemental O2	250	2	0.18	0.27	0.03	0.27	0.88
All original covariates	250	2	0.20	0.28	0.03	0.28	0.89
Supplemental O2	250	2	0.18	0.28	0.03	0.28	0.89
X-ray bilat. infiltrates	250	2	0.18	0.30	0.03	0.30	0.96
All new covariates	250	2	0.19	0.30	0.04	0.30	0.97
Age	250	2	0.17	0.31	0.03	0.31	0.99
Sex	250	2	0.17	0.31	0.03	0.31	0.99
No. symptoms	250	2	0.17	0.31	0.02	0.31	1.00
Unadjusted	250	2	0.18	0.31	0.05	0.31	1.00
BMI	250	2	0.17	0.31	0.03	0.31	1.00
No. comorbid	250	2	0.18	0.31	0.03	0.31	1.00
Smoking status	250	2	0.17	0.31	0.02	0.31	1.01
LASSO, all new covariates	250	2	0.12	0.33	-0.01	0.33	1.05
LASSO, all orig. covariates	250	2	0.12	0.33	0.02	0.33	1.05
All original covariates	500	2	0.30	0.15	-0.01	0.15	0.92
Age and supplemental O2	500	2	0.30	0.15	-0.01	0.15	0.92
All new covariates	500	2	0.30	0.15	-0.01	0.15	0.92
Supplemental O2	500	2	0.29	0.15	-0.01	0.15	0.92
X-ray bilat. infiltrates	500	2	0.27	0.16	-0.01	0.16	0.97
Sex	500	2	0.26	0.16	-0.01	0.16	0.99
Age	500	2	0.27	0.16	-0.01	0.16	1.00
Unadjusted	500	2	0.28	0.16	0.02	0.16	1.00
No. comorbid	500	2	0.26	0.16	-0.01	0.16	1.00
No. symptoms	500	2	0.26	0.16	-0.01	0.16	1.01
BMI	500	2	0.25	0.16	-0.01	0.16	1.01
Smoking status	500	2	0.26	0.16	-0.01	0.16	1.01
LASSO, all new covariates	500	2	0.21	0.17	-0.04	0.16	1.04
LASSO, all orig. covariates	500	2	0.21	0.17	-0.04	0.17	1.05
All original covariates	1500	2	0.72	0.05	0.00	0.05	0.86
All new covariates	1500	2	0.72	0.05	0.00	0.05	0.87
Age and supplemental O2	1500	2	0.72	0.05	0.00	0.05	0.87
Supplemental O2	1500	2	0.71	0.05	0.00	0.05	0.88
X-ray bilat. infiltrates	1500	2	0.68	0.05	0.00	0.05	0.93
LASSO, all new covariates	1500	2	0.63	0.05	-0.01	0.05	0.96
Age	1500	2	0.66	0.06	0.00	0.06	0.98
Sex	1500	2	0.66	0.06	0.00	0.06	0.98
BMI	1500	2	0.65	0.06	0.00	0.06	0.99
No. symptoms	1500	2	0.65	0.06	0.00	0.06	0.99
Smoking status	1500	2	0.65	0.06	0.00	0.06	0.99
No. comorbid	1500	2	0.65	0.06	0.00	0.06	0.99
Unadjusted	1500	2	0.70	0.06	0.03	0.06	1.00
LASSO, all orig. covariates	1500	2	0.56	0.06	-0.03	0.06	1.03

Table 3: Results for a survival outcome and restricted mean survival time in a hospitalized population.

Covariate(s)	N	Effect size	P(Reject $H_0$ )	MSE	Bias	Var.	Rel. eff.
Age and supplemental O2	250	4	0.58	0.24	0.02	0.24	0.89
Supplemental O2	250	4	0.58	0.25	0.02	0.25	0.90
All original covariates	250	4	0.59	0.25	0.02	0.25	0.90
X-ray bilat. infiltrates	250	4	0.56	0.26	0.02	0.26	0.96
All new covariates	250	4	0.56	0.27	0.04	0.26	0.97
Age	250	4	0.54	0.27	0.02	0.27	0.98
Sex	250	4	0.54	0.27	0.02	0.27	0.99
No. symptoms	250	4	0.53	0.27	0.02	0.27	1.00
No. comorbid	250	4	0.54	0.27	0.02	0.27	1.00
BMI	250	4	0.53	0.27	0.02	0.27	1.00
Unadjusted	250	4	0.56	0.27	0.05	0.27	1.00
Smoking status	250	4	0.55	0.27	0.02	0.27	1.00
LASSO, all orig. covariates	250	4	0.44	0.28	-0.01	0.28	1.02
LASSO, all new covariates	250	4	0.44	0.29	-0.04	0.29	1.05
All original covariates	500	4	0.87	0.13	-0.01	0.13	0.91
All new covariates	500	4	0.86	0.13	-0.01	0.13	0.92
Age and supplemental O2	500	4	0.86	0.13	-0.01	0.13	0.92
Supplemental O2	500	4	0.86	0.13	-0.01	0.13	0.92
X-ray bilat. infiltrates	500	4	0.83	0.14	-0.01	0.14	0.98
Age	500	4	0.82	0.14	-0.01	0.14	0.99
Sex	500	4	0.83	0.14	-0.01	0.14	0.99
No. comorbid	500	4	0.83	0.14	-0.01	0.14	1.00
Unadjusted	500	4	0.85	0.14	0.02	0.14	1.00
No. symptoms	500	4	0.82	0.14	-0.01	0.14	1.00
BMI	500	4	0.82	0.14	-0.01	0.14	1.01
LASSO, all new covariates	500	4	0.76	0.14	-0.05	0.14	1.01
Smoking status	500	4	0.83	0.14	-0.01	0.14	1.01
LASSO, all orig. covariates	500	4	0.74	0.15	-0.05	0.15	1.04
All original covariates	1500	4	1.00	0.04	0.00	0.04	0.86
All new covariates	1500	4	1.00	0.04	0.00	0.04	0.86
Age and supplemental O2	1500	4	1.00	0.04	0.00	0.04	0.87
Supplemental O2	1500	4	1.00	0.04	0.00	0.04	0.88
X-ray bilat. infiltrates	1500	4	1.00	0.05	0.00	0.05	0.93
LASSO, all new covariates	1500	4	1.00	0.05	-0.01	0.05	0.96
Age	1500	4	1.00	0.05	0.00	0.05	0.97
Sex	1500	4	1.00	0.05	0.00	0.05	0.97
BMI	1500	4	1.00	0.05	0.00	0.05	0.98
No. symptoms	1500	4	1.00	0.05	0.00	0.05	0.98
No. comorbid	1500	4	1.00	0.05	0.00	0.05	0.98
Smoking status	1500	4	1.00	0.05	0.00	0.05	0.98
Unadjusted	1500	4	1.00	0.05	0.03	0.05	1.00
LASSO, all orig. covariates	1500	4	0.99	0.05	-0.03	0.05	1.06