

Efficiency gains in randomized trials for COVID-19 treatments by adjusting for specific covariates

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Abstract

Simulation study of covariate adjustment for efficiency gains in COVID-19 randomized clinical trials.

1 Introduction

2 Statistical Estimands

2.1 Survival outcome

2.2 Ordinal outcome

3 Description of Data

4 Simulation Methods

5 Simulation Results

6 Recommendations

7 References

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

Covariate(s)	N	Effect	P(Reject H_0)	MSE	Bias	Var.	Rel. eff.
LASSO, B	250	0	0.06	0.31	0.03	0.31	0.86
LASSO, A	250	0	0.05	0.31	0.02	0.31	0.86
LASSO, all	250	0	0.05	0.31	0.02	0.31	0.87
Age & supp. 02	250	0	0.06	0.31	0.03	0.31	0.87
Set B	250	0	0.06	0.32	0.03	0.31	0.88
Supp. 02	250	0	0.06	0.32	0.03	0.32	0.89
Set A	250	0	0.05	0.33	0.04	0.33	0.92
All	250	0	0.04	0.34	0.04	0.34	0.94
X-ray bilat. infilt.	250	0	0.05	0.34	0.03	0.34	0.95
Sex	250	0	0.05	0.35	0.02	0.35	0.98
Age	250	0	0.05	0.35	0.03	0.35	0.98
Dyspnea	250	0	0.06	0.36	0.02	0.36	0.99
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	0.99
BMI	250	0	0.05	0.36	0.03	0.36	1.00
No. comorbid	250	0	0.05	0.36	0.03	0.36	1.00
Hypertension	250	0	0.05	0.36	0.03	0.36	1.00
Unadjusted	250	0	0.05	0.36	0.03	0.36	1.00
LASSO, all	500	0	0.06	0.17	-0.01	0.17	0.88
LASSO, B	500	0	0.06	0.17	-0.01	0.17	0.88
LASSO, A	500	0	0.06	0.17	-0.01	0.17	0.89
Set B	500	0	0.06	0.17	-0.01	0.17	0.90
Age & supp. 02	500	0	0.05	0.17	-0.01	0.17	0.91
Set A	500	0	0.06	0.17	-0.01	0.17	0.92
Supp. 02	500	0	0.06	0.17	-0.01	0.17	0.92
All	500	0	0.05	0.17	-0.01	0.17	0.92
X-ray bilat. infilt.	500	0	0.05	0.18	-0.02	0.18	0.96
Sex	500	0	0.05	0.18	-0.01	0.18	0.97
Dyspnea	500	0	0.05	0.18	-0.02	0.18	0.98
Age	500	0	0.05	0.18	-0.02	0.18	0.98
No. comorbid	500	0	0.05	0.19	-0.02	0.19	0.99
Hypertension	500	0	0.05	0.19	-0.02	0.19	0.99
No. symptoms	500	0	0.05	0.19	-0.02	0.19	0.99
BMI	500	0	0.05	0.19	-0.02	0.19	1.00
Smoking status	500	0	0.06	0.19	-0.02	0.19	1.00
Unadjusted	500	0	0.05	0.19	-0.02	0.19	1.00
LASSO, B	1500	0	0.06	0.06	0.00	0.06	0.85
Set B	1500	0	0.07	0.06	0.00	0.06	0.85
All	1500	0	0.06	0.06	0.00	0.06	0.85
LASSO, all	1500	0	0.07	0.06	0.00	0.06	0.85
LASSO, A	1500	0	0.07	0.06	0.00	0.06	0.85
Set A	1500	0	0.06	0.06	0.00	0.06	0.85
Age & supp. 02	1500	0	0.07	0.06	0.00	0.06	0.86
Supp. 02	1500	0	0.06	0.06	0.00	0.06	0.87
X-ray bilat. infilt.	1500	0	0.06	0.06	0.00	0.06	0.93
Dyspnea	1500	0	0.06	0.06	0.00	0.06	0.97
Age	1500	0	0.05	0.07	0.00	0.07	0.98
Sex	1500	0	0.06	0.07	0.00	0.07	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
Hypertension	1500	0	0.06	0.07	0.00	0.07	1.00
Unadjusted	1500	0	0.05	0.07	0.00	0.07	1.00

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

Covariate(s)	N	Effect	P(Reject H_0)	MSE	Bias	Var.	Rel. eff.
LASSO, A	250	2	0.20	0.27	0.03	0.27	0.87
LASSO, B	250	2	0.20	0.27	0.03	0.27	0.87
LASSO, all	250	2	0.20	0.27	0.03	0.27	0.88
Age & supp. 02	250	2	0.18	0.27	0.03	0.27	0.88
Set B	250	2	0.20	0.28	0.03	0.28	0.89
Supp. 02	250	2	0.18	0.28	0.03	0.28	0.89
X-ray bilat. infilt.	250	2	0.18	0.30	0.03	0.30	0.96
Set A	250	2	0.19	0.30	0.04	0.30	0.97
All	250	2	0.17	0.31	0.04	0.31	0.98
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
Dyspnea	250	2	0.17	0.31	0.02	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
Hypertension	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, B	500	2	0.30	0.15	-0.01	0.15	0.91
LASSO, all	500	2	0.30	0.15	-0.01	0.15	0.91
LASSO, A	500	2	0.30	0.15	-0.01	0.15	0.91
Set B	500	2	0.30	0.15	-0.01	0.15	0.92
Age & supp. 02	500	2	0.30	0.15	-0.01	0.15	0.92
Set A	500	2	0.30	0.15	-0.01	0.15	0.92
Supp. 02	500	2	0.29	0.15	-0.01	0.15	0.92
All	500	2	0.30	0.15	-0.01	0.15	0.93
X-ray bilat. infilt.	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
Dyspnea	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
Hypertension	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
Set B	1500	2	0.72	0.05	0.00	0.05	0.86
LASSO, B	1500	2	0.72	0.05	0.00	0.05	0.86
All	1500	2	0.71	0.05	0.00	0.05	0.86
Set A	1500	2	0.72	0.05	0.00	0.05	0.87
LASSO, all	1500	2	0.72	0.05	0.00	0.05	0.87
LASSO, A	1500	2	0.71	0.05	0.00	0.05	0.87
Age & supp. 02	1500	2	0.72	0.05	0.00	0.05	0.87
Supp. 02	1500	2	0.71	0.05	0.00	0.05	0.88
X-ray bilat. infilt.	1500	2	0.68	0.05	0.00	0.05	0.93
Dyspnea	1500	2	0.66	0.06	0.00	0.06	0.97
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	0.66	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	0.66	0.06	0.00	0.06	0.99
Hypertension	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

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

Covariate(s)	N	Effect	P(Reject H_0)	MSE	Bias	Var.	Rel. eff.
LASSO, B	250	4	0.60	0.24	0.02	0.24	0.88
LASSO, A	250	4	0.60	0.24	0.02	0.24	0.89
LASSO, all	250	4	0.60	0.24	0.02	0.24	0.89
Age & supp. 02	250	4	0.58	0.24	0.02	0.24	0.89
Supp. 02	250	4	0.58	0.25	0.02	0.25	0.90
Set B	250	4	0.59	0.25	0.02	0.25	0.90
X-ray bilat. infilt.	250	4	0.56	0.26	0.02	0.26	0.96
Set A	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
Dyspnea	250	4	0.54	0.27	0.01	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
Hypertension	250	4	0.54	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
All	250	4	0.52	0.28	0.04	0.28	1.03
LASSO, B	500	4	0.87	0.13	-0.01	0.13	0.91
LASSO, all	500	4	0.87	0.13	-0.01	0.13	0.91
LASSO, A	500	4	0.88	0.13	-0.01	0.13	0.91
Set B	500	4	0.87	0.13	-0.01	0.13	0.91
Set A	500	4	0.86	0.13	-0.01	0.13	0.92
Age & supp. 02	500	4	0.86	0.13	-0.01	0.13	0.92
Supp. 02	500	4	0.86	0.13	-0.01	0.13	0.92
All	500	4	0.86	0.13	-0.01	0.13	0.93
X-ray bilat. infilt.	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
Dyspnea	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
Hypertension	500	4	0.83	0.14	-0.01	0.14	1.00
BMI	500	4	0.82	0.14	-0.01	0.14	1.01
Smoking status	500	4	0.83	0.14	-0.01	0.14	1.01
All	1500	4	1.00	0.04	0.00	0.04	0.86
Set B	1500	4	1.00	0.04	0.00	0.04	0.86
LASSO, B	1500	4	1.00	0.04	0.00	0.04	0.86
Set A	1500	4	1.00	0.04	0.00	0.04	0.86
LASSO, all	1500	4	1.00	0.04	0.00	0.04	0.86
LASSO, A	1500	4	1.00	0.04	0.00	0.04	0.86
Age & supp. 02	1500	4	1.00	0.04	0.00	0.04	0.87
Supp. 02	1500	4	1.00	0.04	0.00	0.04	0.87
X-ray bilat. infilt.	1500	4	1.00	0.05	0.00	0.05	0.93
Dyspnea	1500	4	1.00	0.05	0.00	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
Hypertension	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

Table 4: Results for a survival outcome and restricted mean survival time in a hospitalized population when covariates are not prognostic of time to intubation or death.

Covariate(s)	N	Effect	P(Reject H_0)	MSE	Bias	Var.	Rel. eff.
Sex	250	0	0.05	0.37	-0.03	0.37	0.99
Supp. 02	250	0	0.05	0.37	-0.03	0.37	0.99
Age & supp. 02	250	0	0.05	0.37	-0.03	0.37	0.99
No. comorbid	250	0	0.05	0.37	-0.03	0.37	0.99
Age	250	0	0.05	0.37	-0.03	0.37	1.00
Dyspnea	250	0	0.05	0.37	-0.03	0.37	1.00
X-ray bilat. infilt.	250	0	0.05	0.37	-0.03	0.37	1.00
Unadjusted	250	0	0.05	0.37	-0.03	0.37	1.00
LASSO, A	250	0	0.06	0.37	-0.03	0.37	1.00
No. symptoms	250	0	0.05	0.37	-0.03	0.37	1.00
BMI	250	0	0.05	0.37	-0.03	0.37	1.00
LASSO, B	250	0	0.05	0.38	-0.03	0.37	1.00
Hypertension	250	0	0.05	0.38	-0.03	0.38	1.00
Smoking status	250	0	0.06	0.38	-0.03	0.38	1.00
LASSO, all	250	0	0.06	0.38	-0.03	0.38	1.01
Set B	250	0	0.05	0.38	-0.03	0.38	1.02
Set A	250	0	0.04	0.41	-0.03	0.40	1.08
All	250	0	0.04	0.42	-0.04	0.41	1.11
Smoking status	500	0	0.05	0.17	0.01	0.17	0.98
Sex	500	0	0.04	0.17	0.01	0.17	0.99
Dyspnea	500	0	0.04	0.17	0.01	0.17	0.99
Hypertension	500	0	0.04	0.17	0.01	0.17	0.99
No. comorbid	500	0	0.04	0.17	0.01	0.17	0.99
X-ray bilat. infilt.	500	0	0.05	0.17	0.01	0.17	0.99
BMI	500	0	0.05	0.17	0.01	0.17	0.99
No. symptoms	500	0	0.05	0.17	0.01	0.17	0.99
Supp. 02	500	0	0.05	0.17	0.01	0.17	0.99
Age	500	0	0.05	0.17	0.01	0.17	1.00
Set B	500	0	0.04	0.17	0.01	0.17	1.00
Age & supp. 02	500	0	0.04	0.17	0.01	0.17	1.00
Unadjusted	500	0	0.05	0.17	0.01	0.17	1.00
LASSO, all	500	0	0.05	0.17	0.01	0.17	1.01
LASSO, A	500	0	0.05	0.17	0.01	0.17	1.01
Set A	500	0	0.05	0.17	0.01	0.17	1.01
LASSO, B	500	0	0.05	0.18	0.01	0.18	1.01
All	500	0	0.05	0.18	0.01	0.18	1.01
LASSO, B	1500	0	0.07	0.07	-0.02	0.07	0.97
Set B	1500	0	0.07	0.07	-0.02	0.07	0.97
Age	1500	0	0.07	0.07	-0.02	0.07	0.97
Set A	1500	0	0.07	0.07	-0.02	0.07	0.97
All	1500	0	0.07	0.07	-0.02	0.07	0.97
LASSO, all	1500	0	0.07	0.07	-0.02	0.07	0.97
LASSO, A	1500	0	0.07	0.07	-0.02	0.07	0.97
Age & supp. 02	1500	0	0.07	0.07	-0.02	0.07	0.97
Sex	1500	0	0.07	0.07	-0.01	0.07	0.99
Dyspnea	1500	0	0.07	0.07	-0.01	0.07	0.99
No. symptoms	1500	0	0.07	0.07	-0.01	0.07	0.99
X-ray bilat. infilt.	1500	0	0.07	0.07	-0.01	0.07	0.99
BMI	1500	0	0.07	0.07	-0.01	0.07	0.99
Smoking status	1500	0	0.07	0.07	-0.01	0.07	0.99
Hypertension	1500	0	0.07	0.07	-0.01	0.07	1.00
Supp. 02	1500	0	0.07	0.07	-0.01	0.07	1.00
No. comorbid	1500	0	0.07	0.07	-0.01	0.07	1.00
Unadjusted	1500	0	0.07	0.07	-0.01	0.07	1.00

Table 5: Results for a survival outcome and restricted mean survival time in a hospitalized population when covariates are not prognostic of time to intubation or death.

Covariate(s)	N	Effect	P(Reject H_0)	MSE	Bias	Var.	Rel. eff.
Sex	250	2	0.15	0.31	-0.02	0.31	1.00
Supp. O2	250	2	0.15	0.31	-0.02	0.31	1.00
Unadjusted	250	2	0.16	0.31	0.00	0.31	1.00
LASSO, all	250	2	0.16	0.31	-0.02	0.31	1.00
Age & supp. O2	250	2	0.15	0.31	-0.02	0.31	1.00
LASSO, B	250	2	0.15	0.31	-0.02	0.31	1.00
LASSO, A	250	2	0.16	0.31	-0.02	0.31	1.00
Age	250	2	0.14	0.32	-0.02	0.32	1.01
No. comorbid	250	2	0.15	0.32	-0.02	0.32	1.01
X-ray bilat. infilt.	250	2	0.15	0.32	-0.02	0.32	1.01
Dyspnea	250	2	0.15	0.32	-0.02	0.32	1.01
No. symptoms	250	2	0.15	0.32	-0.02	0.32	1.01
Hypertension	250	2	0.15	0.32	-0.02	0.32	1.01
BMI	250	2	0.15	0.32	-0.02	0.32	1.01
Smoking status	250	2	0.15	0.32	-0.02	0.32	1.02
Set B	250	2	0.15	0.32	-0.03	0.32	1.03
Set A	250	2	0.15	0.35	-0.02	0.35	1.11
All	250	2	0.13	0.37	-0.02	0.37	1.18
Smoking status	500	2	0.27	0.15	0.01	0.15	0.99
LASSO, A	500	2	0.28	0.15	0.00	0.15	1.00
Sex	500	2	0.28	0.15	0.00	0.15	1.00
Dyspnea	500	2	0.28	0.15	0.01	0.15	1.00
LASSO, all	500	2	0.28	0.15	0.00	0.15	1.00
Age	500	2	0.28	0.15	0.00	0.15	1.00
Hypertension	500	2	0.28	0.15	0.01	0.15	1.00
Unadjusted	500	2	0.30	0.15	0.03	0.15	1.00
LASSO, B	500	2	0.29	0.15	0.00	0.15	1.00
No. comorbid	500	2	0.28	0.15	0.00	0.15	1.00
BMI	500	2	0.28	0.15	0.00	0.15	1.00
Set B	500	2	0.28	0.15	0.01	0.15	1.00
Supp. O2	500	2	0.28	0.15	0.01	0.15	1.00
X-ray bilat. infilt.	500	2	0.28	0.15	0.01	0.15	1.00
No. symptoms	500	2	0.28	0.15	0.01	0.15	1.00
Age & supp. O2	500	2	0.28	0.15	0.01	0.15	1.01
Set A	500	2	0.28	0.15	0.00	0.16	1.01
All	500	2	0.28	0.16	0.01	0.16	1.02
Age	1500	2	0.62	0.06	-0.01	0.06	1.00
Set B	1500	2	0.62	0.06	-0.01	0.06	1.00
LASSO, B	1500	2	0.62	0.06	-0.01	0.06	1.00
All	1500	2	0.62	0.06	-0.01	0.06	1.00
Age & supp. O2	1500	2	0.62	0.06	-0.01	0.06	1.00
Set A	1500	2	0.61	0.06	-0.01	0.06	1.00
Unadjusted	1500	2	0.67	0.06	0.02	0.06	1.00
LASSO, A	1500	2	0.62	0.06	-0.01	0.06	1.00
Sex	1500	2	0.63	0.06	-0.01	0.06	1.00
LASSO, all	1500	2	0.62	0.06	-0.01	0.06	1.00
Dyspnea	1500	2	0.63	0.06	-0.01	0.06	1.00
Smoking status	1500	2	0.62	0.06	-0.01	0.06	1.00
No. symptoms	1500	2	0.63	0.06	-0.01	0.06	1.00
BMI	1500	2	0.62	0.06	-0.01	0.06	1.00
X-ray bilat. infilt.	1500	2	0.62	0.06	-0.01	0.06	1.00
Hypertension	1500	2	0.62	0.06	-0.01	0.06	1.00
Supp. O2	1500	2	0.62	0.06	-0.01	0.06	1.01
No. comorbid	1500	2	0.63	0.06	-0.01	0.06	1.01

Table 6: Results for a survival outcome and restricted mean survival time in a hospitalized population when covariates are not prognostic of time to intubation or death.

Covariate(s)	N	Effect	P(Reject H_0)	MSE	Bias	Var.	Rel. eff.
LASSO, B	250	4	0.52	0.28	-0.03	0.28	0.99
LASSO, all	250	4	0.53	0.28	-0.02	0.28	0.99
Age & supp. 02	250	4	0.51	0.28	-0.03	0.28	1.00
LASSO, A	250	4	0.53	0.28	-0.02	0.28	1.00
Sex	250	4	0.52	0.28	-0.02	0.28	1.00
Unadjusted	250	4	0.53	0.28	0.01	0.28	1.00
Supp. 02	250	4	0.51	0.28	-0.02	0.28	1.00
Age	250	4	0.51	0.28	-0.03	0.28	1.00
No. comorbid	250	4	0.51	0.28	-0.02	0.28	1.00
No. symptoms	250	4	0.51	0.29	-0.02	0.29	1.01
X-ray bilat. infilt.	250	4	0.52	0.29	-0.02	0.29	1.01
Dyspnea	250	4	0.51	0.29	-0.02	0.29	1.01
Hypertension	250	4	0.52	0.29	-0.02	0.29	1.01
BMI	250	4	0.52	0.29	-0.02	0.29	1.02
Smoking status	250	4	0.52	0.29	-0.02	0.29	1.02
Set B	250	4	0.52	0.29	-0.03	0.29	1.03
Set A	250	4	0.49	0.31	-0.02	0.31	1.09
All	250	4	0.44	0.33	-0.01	0.33	1.15
Smoking status	500	4	0.83	0.13	0.01	0.13	0.99
Sex	500	4	0.82	0.13	0.01	0.13	0.99
Dyspnea	500	4	0.83	0.13	0.01	0.13	1.00
Age	500	4	0.82	0.13	0.00	0.13	1.00
No. comorbid	500	4	0.83	0.13	0.00	0.13	1.00
BMI	500	4	0.82	0.13	0.00	0.13	1.00
Supp. 02	500	4	0.82	0.13	0.01	0.13	1.00
Hypertension	500	4	0.83	0.13	0.01	0.13	1.00
LASSO, all	500	4	0.83	0.13	0.00	0.13	1.00
Age & supp. 02	500	4	0.82	0.13	0.01	0.13	1.00
X-ray bilat. infilt.	500	4	0.82	0.13	0.01	0.13	1.00
LASSO, A	500	4	0.83	0.13	0.00	0.13	1.00
LASSO, B	500	4	0.83	0.13	0.00	0.13	1.00
Unadjusted	500	4	0.84	0.13	0.03	0.13	1.00
No. symptoms	500	4	0.82	0.13	0.01	0.13	1.00
Set B	500	4	0.82	0.13	0.00	0.13	1.01
Set A	500	4	0.82	0.13	0.00	0.13	1.01
All	500	4	0.82	0.14	0.01	0.14	1.02
LASSO, B	1500	4	1.00	0.05	-0.01	0.05	0.99
Set B	1500	4	1.00	0.05	-0.01	0.05	1.00
Sex	1500	4	1.00	0.05	-0.01	0.05	1.00
LASSO, all	1500	4	1.00	0.05	-0.01	0.05	1.00
LASSO, A	1500	4	1.00	0.05	-0.01	0.05	1.00
All	1500	4	1.00	0.05	-0.01	0.05	1.00
Dyspnea	1500	4	1.00	0.05	-0.01	0.05	1.00
Age	1500	4	1.00	0.05	-0.01	0.05	1.00
No. symptoms	1500	4	1.00	0.05	-0.01	0.05	1.00
BMI	1500	4	1.00	0.05	-0.01	0.05	1.00
X-ray bilat. infilt.	1500	4	1.00	0.05	-0.01	0.05	1.00
Smoking status	1500	4	1.00	0.05	-0.01	0.05	1.00
Unadjusted	1500	4	1.00	0.05	0.02	0.05	1.00
Hypertension	1500	4	1.00	0.05	-0.01	0.05	1.00
Set A	1500	4	1.00	0.05	-0.01	0.05	1.00
Age & supp. 02	1500	4	1.00	0.05	-0.01	0.05	1.00
Supp. 02	1500	4	1.00	0.05	-0.01	0.05	1.00
No. comorbid	1500	4	1.00	0.05	-0.01	0.05	1.00