

Supplementary Information. Full Table 3.

CPAP	Age	Sex	Hypertension	From Care Home	Intubated	Time	Group	Survival Probabilities
Yes	60	Female	No	No	No	<=7days	Early	0.910395432
Yes	60	Female	No	No	No	<=7days	Late	0.910395432
Yes	60	Female	Yes	No	Yes	<=7days	Early	0.899582935
Yes	60	Female	Yes	No	Yes	<=7days	Late	0.899582935
No	60	Female	No	No	No	>7days	Early	0.887800382
No	60	Female	No	No	No	>7days	Late	0.887800382
No	60	Female	Yes	No	Yes	>7days	Early	0.874454723
No	60	Female	Yes	No	Yes	>7days	Late	0.874454723
Yes	60	Female	Yes	No	No	<=7days	Early	0.851197476
Yes	60	Female	Yes	No	No	<=7days	Late	0.851197476
Yes	80	Female	No	No	No	<=7days	Early	0.833556904
Yes	80	Female	No	No	No	<=7days	Late	0.833556904
Yes	60	Female	No	Yes	No	<=7days	Early	0.832125577
Yes	60	Female	No	Yes	No	<=7days	Late	0.832125577
No	60	Female	Yes	No	No	>7days	Early	0.815264181
No	60	Female	Yes	No	No	>7days	Late	0.815264181
Yes	60	Female	No	No	No	>7days	Early	0.814519675
Yes	60	Female	No	No	No	>7days	Late	0.814519675
Yes	80	Female	Yes	No	Yes	<=7days	Early	0.814465218
Yes	80	Female	Yes	No	Yes	<=7days	Late	0.814465218
Yes	60	Female	Yes	Yes	Yes	<=7days	Early	0.812888851
Yes	60	Female	Yes	Yes	Yes	<=7days	Late	0.812888851
No	80	Female	No	No	No	>7days	Early	0.79390474
No	80	Female	No	No	No	>7days	Late	0.79390474
Yes	60	Female	Yes	No	Yes	>7days	Early	0.793527288
Yes	60	Female	Yes	No	Yes	>7days	Late	0.793527288
No	60	Female	No	Yes	No	>7days	Early	0.792176938
No	60	Female	No	Yes	No	>7days	Late	0.792176938
No	60	Female	No	No	No	<=7days	Early	0.782401314
No	60	Female	No	No	No	<=7days	Late	0.782401314
No	80	Female	Yes	No	Yes	>7days	Early	0.770924311
No	80	Female	Yes	No	Yes	>7days	Late	0.770924311
No	60	Female	Yes	Yes	Yes	>7days	Early	0.769033248
No	60	Female	Yes	Yes	Yes	>7days	Late	0.769033248
Yes	60	Female	No	No	Yes	<=7days	Early	0.764151136
Yes	60	Female	No	No	Yes	<=7days	Late	0.764151136
No	60	Female	Yes	No	Yes	<=7days	Early	0.758343841
No	60	Female	Yes	No	Yes	<=7days	Late	0.758343841
Yes	80	Female	Yes	No	No	<=7days	Early	0.73165857
Yes	80	Female	Yes	No	No	<=7days	Late	0.73165857
Yes	60	Female	Yes	Yes	No	<=7days	Early	0.72950373
Yes	60	Female	Yes	Yes	No	<=7days	Late	0.72950373
No	60	Female	No	No	Yes	>7days	Early	0.711057205

No	60	Female	No	No	Yes	>7days	Late	0.711057205
Yes	60	Female	Yes	No	No	>7days	Early	0.703215759
Yes	60	Female	Yes	No	No	>7days	Late	0.703215759
Yes	80	Female	No	Yes	No	<=7days	Early	0.700201471
Yes	80	Female	No	Yes	No	<=7days	Late	0.700201471
Yes	60	Male	No	No	No	<=7days	Early	0.685018693
Yes	60	Male	No	No	No	<=7days	Late	0.685018693
No	80	Female	Yes	No	No	>7days	Early	0.672948356
No	80	Female	Yes	No	No	>7days	Late	0.672948356
Yes	80	Female	No	No	No	>7days	Early	0.671757093
Yes	80	Female	No	No	No	>7days	Late	0.671757093
No	60	Female	Yes	Yes	No	>7days	Early	0.670436825
No	60	Female	Yes	Yes	No	>7days	Late	0.670436825
Yes	60	Female	No	Yes	No	>7days	Early	0.669238814
Yes	60	Female	No	Yes	No	>7days	Late	0.669238814
Yes	80	Female	Yes	Yes	Yes	<=7days	Early	0.669151226
Yes	80	Female	Yes	Yes	Yes	<=7days	Late	0.669151226
No	60	Female	Yes	No	No	<=7days	Early	0.656300897
No	60	Female	Yes	No	No	<=7days	Late	0.656300897
Yes	60	Male	Yes	No	Yes	<=7days	Early	0.652817787
Yes	60	Male	Yes	No	Yes	<=7days	Late	0.652817787
Yes	80	Female	Yes	No	Yes	>7days	Early	0.638588744
Yes	80	Female	Yes	No	Yes	>7days	Late	0.638588744
No	80	Female	No	Yes	No	>7days	Early	0.63648302
No	80	Female	No	Yes	No	>7days	Late	0.63648302
Yes	60	Female	Yes	Yes	Yes	>7days	Early	0.63589077
Yes	60	Female	Yes	Yes	Yes	>7days	Late	0.63589077
No	80	Female	No	No	No	<=7days	Early	0.62133949
No	80	Female	No	No	No	<=7days	Late	0.62133949
No	60	Female	No	Yes	No	<=7days	Early	0.618554476
No	60	Female	No	Yes	No	<=7days	Late	0.618554476
No	80	Female	Yes	Yes	Yes	>7days	Early	0.600916908
No	80	Female	Yes	Yes	Yes	>7days	Late	0.600916908
Yes	80	Female	No	No	Yes	<=7days	Early	0.593540871
Yes	80	Female	No	No	Yes	<=7days	Late	0.593540871
Yes	60	Female	No	Yes	Yes	<=7days	Early	0.5906252
Yes	60	Female	No	Yes	Yes	<=7days	Late	0.5906252
No	80	Female	Yes	No	Yes	<=7days	Early	0.584824512
No	80	Female	Yes	No	Yes	<=7days	Late	0.584824512
No	60	Female	Yes	Yes	Yes	<=7days	Early	0.581870389
No	60	Female	Yes	Yes	Yes	<=7days	Late	0.581870389
Yes	60	Female	No	No	Yes	>7days	Early	0.555521013
Yes	60	Female	No	No	Yes	>7days	Late	0.555521013
Yes	80	Female	Yes	Yes	No	<=7days	Early	0.542463518
Yes	80	Female	Yes	Yes	No	<=7days	Late	0.542463518
Yes	60	Male	Yes	No	No	<=7days	Early	0.522433738
Yes	60	Male	Yes	No	No	<=7days	Late	0.522433738

No	80	Female	No	No	Yes	>7days	Early	0.51617843
No	80	Female	No	No	Yes	>7days	Late	0.51617843
No	60	Female	No	Yes	Yes	>7days	Early	0.512966075
No	60	Female	No	Yes	Yes	>7days	Late	0.512966075
Yes	80	Female	Yes	No	No	>7days	Early	0.505196499
Yes	80	Female	Yes	No	No	>7days	Late	0.505196499
Yes	60	Female	Yes	Yes	No	>7days	Early	0.501950577
Yes	60	Female	Yes	Yes	No	>7days	Late	0.501950577
No	60	Female	No	No	Yes	<=7days	Early	0.495036028
No	60	Female	No	No	Yes	<=7days	Late	0.495036028
Yes	80	Male	No	No	No	<=7days	Early	0.480152544
Yes	80	Male	No	No	No	<=7days	Late	0.480152544
Yes	60	Male	No	Yes	No	<=7days	Early	0.476838607
Yes	60	Male	No	Yes	No	<=7days	Late	0.476838607
No	60	Male	No	No	No	>7days	Early	0.474332217
No	60	Male	No	No	No	>7days	Late	0.474332217
No	80	Female	Yes	Yes	No	>7days	Early	0.460529455
No	80	Female	Yes	Yes	No	>7days	Late	0.460529455
Yes	80	Female	No	Yes	No	>7days	Early	0.458934902
Yes	80	Female	No	Yes	No	>7days	Late	0.458934902
No	80	Female	Yes	No	No	<=7days	Early	0.441885288
No	80	Female	Yes	No	No	<=7days	Late	0.441885288
No	60	Female	Yes	Yes	No	<=7days	Early	0.438491537
No	60	Female	Yes	Yes	No	<=7days	Late	0.438491537
Yes	80	Male	Yes	No	Yes	<=7days	Early	0.437348665
Yes	80	Male	Yes	No	Yes	<=7days	Late	0.437348665
Yes	60	Male	Yes	Yes	Yes	<=7days	Early	0.43394748
Yes	60	Male	Yes	Yes	Yes	<=7days	Late	0.43394748
No	60	Male	Yes	No	Yes	>7days	Early	0.431377099
No	60	Male	Yes	No	Yes	>7days	Late	0.431377099
Yes	80	Female	Yes	Yes	Yes	>7days	Early	0.415624892
Yes	80	Female	Yes	Yes	Yes	>7days	Late	0.415624892
No	80	Female	No	Yes	No	<=7days	Early	0.393931948
No	80	Female	No	Yes	No	<=7days	Late	0.393931948
No	60	Male	No	No	No	<=7days	Early	0.37199309
No	60	Male	No	No	No	<=7days	Late	0.37199309
Yes	80	Female	No	Yes	Yes	<=7days	Early	0.360169914
Yes	80	Female	No	Yes	Yes	<=7days	Late	0.360169914
No	80	Female	Yes	Yes	Yes	<=7days	Early	0.349888561
No	80	Female	Yes	Yes	Yes	<=7days	Late	0.349888561
Yes	60	Male	No	No	Yes	<=7days	Early	0.338241934
Yes	60	Male	No	No	Yes	<=7days	Late	0.338241934
No	60	Male	Yes	No	Yes	<=7days	Early	0.328001693
No	60	Male	Yes	No	Yes	<=7days	Late	0.328001693
Yes	80	Female	No	No	Yes	>7days	Early	0.319815887
Yes	80	Female	No	No	Yes	>7days	Late	0.319815887
Yes	60	Female	No	Yes	Yes	>7days	Early	0.316392531

Yes	60	Female	No	Yes	Yes	>7days	Late	0.316392531
Yes	80	Male	Yes	No	No	<=7days	Early	0.283909912
Yes	80	Male	Yes	No	No	<=7days	Late	0.283909912
Yes	60	Male	Yes	Yes	No	<=7days	Early	0.280555317
Yes	60	Male	Yes	Yes	No	<=7days	Late	0.280555317
No	60	Male	Yes	No	No	>7days	Early	0.278029238
No	60	Male	Yes	No	No	>7days	Late	0.278029238
Yes	60	Male	No	No	No	>7days	Early	0.276441832
Yes	60	Male	No	No	No	>7days	Late	0.276441832
No	80	Female	No	Yes	Yes	>7days	Early	0.274017058
No	80	Female	No	Yes	Yes	>7days	Late	0.274017058
Yes	80	Female	Yes	Yes	No	>7days	Early	0.262720871
Yes	80	Female	Yes	Yes	No	>7days	Late	0.262720871
No	80	Female	No	No	Yes	<=7days	Early	0.255747853
No	80	Female	No	No	Yes	<=7days	Late	0.255747853
No	60	Female	No	Yes	Yes	<=7days	Early	0.252476907
No	60	Female	No	Yes	Yes	<=7days	Late	0.252476907
Yes	80	Male	No	Yes	No	<=7days	Early	0.237831111
Yes	80	Male	No	Yes	No	<=7days	Late	0.237831111
No	80	Male	No	No	No	>7days	Early	0.235412782
No	80	Male	No	No	No	>7days	Late	0.235412782
Yes	60	Male	Yes	No	Yes	>7days	Early	0.234712211
Yes	60	Male	Yes	No	Yes	>7days	Late	0.234712211
No	60	Male	No	Yes	No	>7days	Early	0.232220219
No	60	Male	No	Yes	No	>7days	Late	0.232220219
No	80	Female	Yes	Yes	No	<=7days	Early	0.202143002
No	80	Female	Yes	Yes	No	<=7days	Late	0.202143002
Yes	80	Male	Yes	Yes	Yes	<=7days	Early	0.198100364
Yes	80	Male	Yes	Yes	Yes	<=7days	Late	0.198100364
No	80	Male	Yes	No	Yes	>7days	Early	0.195831134
No	80	Male	Yes	No	Yes	>7days	Late	0.195831134
No	60	Male	Yes	Yes	Yes	>7days	Early	0.192839948
No	60	Male	Yes	Yes	Yes	>7days	Late	0.192839948
No	60	Male	Yes	No	No	<=7days	Early	0.183209756
No	60	Male	Yes	No	No	<=7days	Late	0.183209756
No	80	Male	No	No	No	<=7days	Early	0.146940755
No	80	Male	No	No	No	<=7days	Late	0.146940755
No	60	Male	No	Yes	No	<=7days	Early	0.144304534
No	60	Male	No	Yes	No	<=7days	Late	0.144304534
Yes	80	Male	No	No	Yes	<=7days	Early	0.122189859
Yes	80	Male	No	No	Yes	<=7days	Late	0.122189859
Yes	60	Male	No	Yes	Yes	<=7days	Early	0.119788921
Yes	60	Male	No	Yes	Yes	<=7days	Late	0.119788921
No	60	Male	No	No	Yes	>7days	Early	0.117993597
No	60	Male	No	No	Yes	>7days	Late	0.117993597
No	80	Male	Yes	No	Yes	<=7days	Early	0.115117935
No	80	Male	Yes	No	Yes	<=7days	Late	0.115117935

No	60	Male	Yes	Yes	Yes	<=7days	Early	0.112792455
No	60	Male	Yes	Yes	Yes	<=7days	Late	0.112792455
Yes	60	Male	Yes	No	No	>7days	Early	0.110071787
Yes	60	Male	Yes	No	No	>7days	Late	0.110071787
Yes	80	Female	No	Yes	Yes	>7days	Early	0.107347851
Yes	80	Female	No	Yes	Yes	>7days	Late	0.107347851
Yes	80	Male	Yes	Yes	No	<=7days	Early	0.085025151
Yes	80	Male	Yes	Yes	No	<=7days	Late	0.085025151
No	80	Male	Yes	No	No	>7days	Early	0.083546798
No	80	Male	Yes	No	No	>7days	Late	0.083546798
Yes	80	Male	No	No	No	>7days	Early	0.082624218
Yes	80	Male	No	No	No	>7days	Late	0.082624218
No	60	Male	Yes	Yes	No	>7days	Early	0.081611748
No	60	Male	Yes	Yes	No	>7days	Late	0.081611748
Yes	60	Male	No	Yes	No	>7days	Early	0.080702076
Yes	60	Male	No	Yes	No	>7days	Late	0.080702076
No	80	Female	No	Yes	Yes	<=7days	Early	0.069300125
No	80	Female	No	Yes	Yes	<=7days	Late	0.069300125
Yes	80	Male	Yes	No	Yes	>7days	Early	0.060156935
Yes	80	Male	Yes	No	Yes	>7days	Late	0.060156935
No	80	Male	No	Yes	No	>7days	Early	0.058924488
No	80	Male	No	Yes	No	>7days	Late	0.058924488
No	60	Male	No	No	Yes	<=7days	Early	0.058806535
No	60	Male	No	No	Yes	<=7days	Late	0.058806535
Yes	60	Male	Yes	Yes	Yes	>7days	Early	0.058581703
Yes	60	Male	Yes	Yes	Yes	>7days	Late	0.058581703
No	80	Male	Yes	Yes	Yes	>7days	Early	0.04109502
No	80	Male	Yes	Yes	Yes	>7days	Late	0.04109502
No	80	Male	Yes	No	No	<=7days	Early	0.037208577
No	80	Male	Yes	No	No	<=7days	Late	0.037208577
No	60	Male	Yes	Yes	No	<=7days	Early	0.036070298
No	60	Male	Yes	Yes	No	<=7days	Late	0.036070298
Yes	60	Male	No	No	Yes	>7days	Early	0.025118337
Yes	60	Male	No	No	Yes	>7days	Late	0.025118337
No	80	Male	No	Yes	No	<=7days	Early	0.023420678
No	80	Male	No	Yes	No	<=7days	Late	0.023420678
Yes	80	Male	No	Yes	Yes	<=7days	Early	0.016322323
Yes	80	Male	No	Yes	Yes	<=7days	Late	0.016322323
No	80	Male	No	No	Yes	>7days	Early	0.015851257
No	80	Male	No	No	Yes	>7days	Late	0.015851257
No	60	Male	No	Yes	Yes	>7days	Early	0.015243056
No	60	Male	No	Yes	Yes	>7days	Late	0.015243056
No	80	Male	Yes	Yes	Yes	<=7days	Early	0.01452431
No	80	Male	Yes	Yes	Yes	<=7days	Late	0.01452431
Yes	80	Male	Yes	No	No	>7days	Early	0.013852597
Yes	80	Male	Yes	No	No	>7days	Late	0.013852597
Yes	60	Male	Yes	Yes	No	>7days	Early	0.013304146

Yes	60	Male	Yes	Yes	No	>7days	Late	0.013304146
No	80	Male	Yes	Yes	No	>7days	Early	0.007754826
No	80	Male	Yes	Yes	No	>7days	Late	0.007754826
Yes	80	Male	No	Yes	No	>7days	Early	0.007588076
Yes	80	Male	No	Yes	No	>7days	Late	0.007588076
No	80	Male	No	No	Yes	<=7days	Early	0.004107319
No	80	Male	No	No	Yes	<=7days	Late	0.004107319
Yes	80	Male	Yes	Yes	Yes	>7days	Early	0.004076921
Yes	80	Male	Yes	Yes	Yes	>7days	Late	0.004076921
No	60	Male	No	Yes	Yes	<=7days	Early	0.003899691
No	60	Male	No	Yes	Yes	<=7days	Late	0.003899691
No	80	Male	Yes	Yes	No	<=7days	Early	0.00159182
No	80	Male	Yes	Yes	No	<=7days	Late	0.00159182
Yes	80	Male	No	No	Yes	>7days	Early	0.000789073
Yes	80	Male	No	No	Yes	>7days	Late	0.000789073
Yes	60	Male	No	Yes	Yes	>7days	Early	0.000737608
Yes	60	Male	No	Yes	Yes	>7days	Late	0.000737608
No	80	Male	No	Yes	Yes	>7days	Early	0.000299536
No	80	Male	No	Yes	Yes	>7days	Late	0.000299536
Yes	80	Male	Yes	Yes	No	>7days	Early	0.000230073
Yes	80	Male	Yes	Yes	No	>7days	Late	0.000230073
No	80	Male	No	Yes	Yes	<=7days	Early	2.13E-05
No	80	Male	No	Yes	Yes	<=7days	Late	2.13E-05
Yes	80	Male	No	Yes	Yes	>7days	Early	8.43E-07
Yes	80	Male	No	Yes	Yes	>7days	Late	8.43E-07