

S1 Table. Area under the ROC curve for our labels.

Time to onset	MGP-Log.Reg.	MGP-TCN	MGP-AttTCN w/o α	MGP-AttTCN w/o β	MGP-AttTCN w/ SE kernel	MGP-AttTCN
6h	65.2 \pm 1.2	63.4 \pm 1.6	66.7 \pm 1.1	56.6 \pm 1.1	66.1 \pm 1.4	65.7 \pm 1.6
5h	64.3 \pm 1.3	63.5 \pm 1.2	66.3 \pm 1.4	54.1 \pm 1.0	65.9 \pm 1.2	66.0 \pm 1.1
4h	66.1 \pm 0.9	63.2 \pm 1.3	66.2 \pm 1.3	56.6 \pm 1.4	64.2 \pm 1.1	66.4 \pm 1.3
3h	65.1 \pm 0.8	64.4 \pm 1.0	65.4 \pm 0.8	57.0 \pm 1.2	63.4 \pm 1.0	65.7 \pm 1.2
2h	67.0 \pm 0.7	65.5 \pm 1.0	66.4 \pm 1.0	57.6 \pm 0.9	63.4 \pm 0.8	66.5 \pm 1.1
1h	68.5 \pm 0.6	66.7 \pm 1.3	67.9 \pm 1.0	59.1 \pm 0.8	64.9 \pm 0.8	66.6 \pm 0.8
0h	67.5 \pm 0.4	67.3 \pm 0.9	67.7 \pm 0.7	62.1 \pm 0.8	65.5 \pm 0.6	65.9 \pm 0.6

S2 Table. Area under the ROC curve for Moor et al. [21] labels.

Time to onset	MGP-Log.Reg.	MGP-TCN	MGP-AttTCN w/o α	MGP-AttTCN w/o β	MGP-AttTCN w/ SE kernel	MGP-AttTCN
6h	72.7 \pm 1.4	73.5 \pm 1.2	67.3 \pm 1.9	70.1 \pm 3.1	70.7 \pm 1.4	76.7 \pm 1.4
5h	73.6 \pm 1.3	74.9 \pm 0.7	67.6 \pm 1.0	69.3 \pm 2.2	70.1 \pm 1.7	76.3 \pm 1.0
4h	75.2 \pm 1.3	74.9 \pm 1.0	68.0 \pm 0.9	72.3 \pm 2.5	70.5 \pm 0.9	74.6 \pm 1.5
3h	76.8 \pm 1.2	76.0 \pm 0.6	69.9 \pm 1.4	72.6 \pm 1.6	72.1 \pm 1.3	76.3 \pm 0.9
2h	79.4 \pm 0.6	80.2 \pm 0.6	73.6 \pm 1.1	76.3 \pm 2.0	75.2 \pm 0.8	78.9 \pm 1.4
1h	82.6 \pm 0.5	83.6 \pm 0.4	77.3 \pm 0.9	78.1 \pm 1.6	80.5 \pm 0.6	82.0 \pm 0.8
0h	83.5 \pm 0.4	87.0 \pm 0.5	76.9 \pm 0.7	79.3 \pm 1.0	83.6 \pm 0.6	82.3 \pm 0.7

S3 Table. Area under the precision-recall curve for our labels.

Time to onset	MGP-Log.Reg.	MGP-TCN	MGP-AttTCN w/o α	MGP-AttTCN w/o β	MGP-AttTCN w/ SE kernel	MGP-AttTCN
6h	47.0 \pm 1.5	47.3 \pm 1.9	50.5 \pm 1.6	41.4 \pm 1.1	49.1 \pm 1.7	48.4 \pm 1.4
5h	45.3 \pm 1.3	46.0 \pm 1.1	49.6 \pm 1.4	38.1 \pm 1.3	47.5 \pm 1.1	48.3 \pm 1.9
4h	48.5 \pm 1.1	46.5 \pm 1.6	49.4 \pm 2.0	42.2 \pm 1.5	48.3 \pm 1.2	48.8 \pm 1.4
3h	49.1 \pm 1.0	47.5 \pm 1.0	49.1 \pm 1.1	42.4 \pm 1.2	48.1 \pm 1.1	48.3 \pm 1.2
2h	50.8 \pm 0.8	48.9 \pm 1.3	49.2 \pm 1.2	43.2 \pm 0.8	50.2 \pm 1.1	48.6 \pm 0.9
1h	52.3 \pm 0.8	50.1 \pm 1.5	51.7 \pm 1.2	44.7 \pm 0.9	51.2 \pm 0.8	49.0 \pm 1.0
0h	55.8 \pm 0.6	53.9 \pm 1.2	55.7 \pm 0.8	48.6 \pm 1.1	57.1 \pm 0.8	52.2 \pm 0.7

S4 Table. Area under the precision-recall curve for Moor et al. [21] labels.

Time to onset	MGP-Log.Reg.	MGP-TCN	MGP-AttTCN w/o α	MGP-AttTCN w/o β	MGP-AttTCN w/ SE kernel	MGP-AttTCN
6h	29.2 \pm 2.0	20.9 \pm 1.1	23.4 \pm 1.6	22.8 \pm 2.5	24.2 \pm 2.4	24.2 \pm 1.4
5h	28.3 \pm 1.9	22.3 \pm 1.2	23.9 \pm 1.7	21.4 \pm 2.2	27.0 \pm 3.0	24.2 \pm 1.4
4h	29.3 \pm 2.0	22.9 \pm 1.3	23.1 \pm 1.4	22.6 \pm 1.6	26.6 \pm 1.9	25.5 \pm 1.4
3h	29.7 \pm 1.2	24.5 \pm 1.0	24.5 \pm 1.3	23.6 \pm 1.5	26.5 \pm 1.5	28.6 \pm 1.7
2h	36.7 \pm 1.8	31.4 \pm 1.6	29.3 \pm 1.2	28.1 \pm 1.8	33.2 \pm 1.4	31.5 \pm 2.3
1h	40.5 \pm 0.9	36.8 \pm 1.0	32.5 \pm 1.4	31.6 \pm 1.9	38.2 \pm 1.4	39.4 \pm 1.6
0h	44.4 \pm 1.3	47.0 \pm 1.3	33.8 \pm 1.0	36.8 \pm 1.1	41.0 \pm 1.1	43.1 \pm 1.6

S5 Table. Area under the ROC curve for our labels and the baseline dataset.

Time to onset	Log. Reg.	InSight	MGP-AttTCN
6h	57.2	54.7	64.05 ± 2.2
5h	56.6	49.0	66.36 ± 1.95
4h	53.8	55.9	67.46 ± 1.59
3h	53.2	53.1	66.52 ± 1.65
2h	53.8	55.2	66.99 ± 1.62
1h	54.3	57.3	66.39 ± 1.28
0h	50.8	55.9	64.66 ± 1.82

S6 Table. Area under the ROC curve for Moor et al. [21] labels and the baseline dataset.

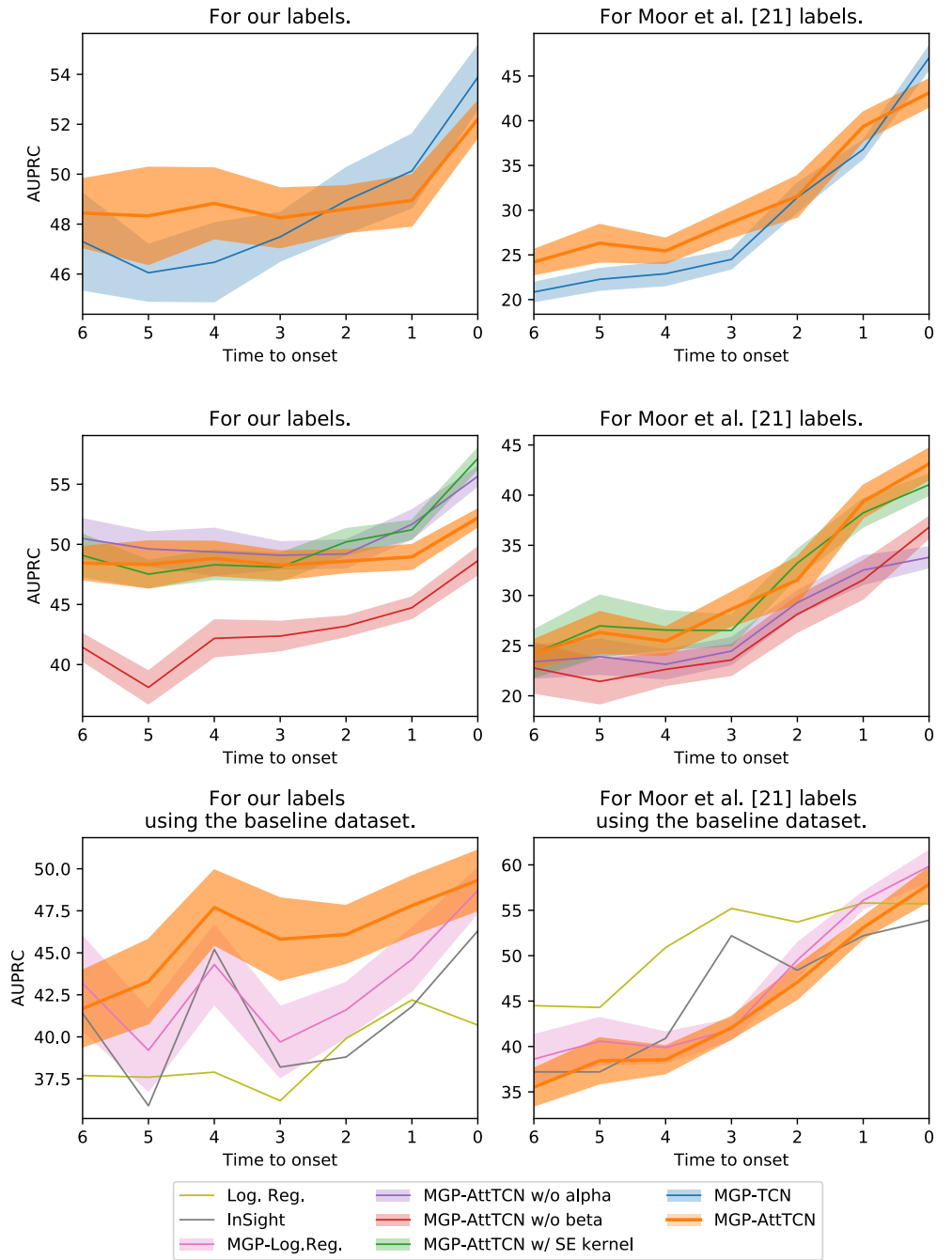
Time to onset	Log. Reg.	InSight	MGP-AttTCN
6h	73.9	64.5	72.58 ± 1.82
5h	73.9	64.4	72.5 ± 1.59
4h	76.2	65.7	71.78 ± 1.42
3h	76.5	74.1	73.36 ± 1.19
2h	76.2	69.7	75.39 ± 1.55
1h	77.0	74.1	77.71 ± 1.33
0h	77.3	73.1	78.56 ± 1.28

S7 Table. Area under the Precision-Recall curve for our labels and the baseline dataset.

Time to onset	Log. Reg.	InSight	MGP-AttTCN
6h	37.7	41.4	41.68 ± 2.27
5h	37.6	35.9	43.29 ± 2.5
4h	37.9	45.2	47.7 ± 2.22
3h	36.2	38.2	45.81 ± 2.44
2h	39.9	38.8	46.09 ± 1.71
1h	42.2	41.8	47.81 ± 1.75
0h	40.7	46.3	49.31 ± 1.78

S8 Table. Area under the Precision-Recall curve for Moor et al. [21] labels and the baseline dataset.

Time to onset	Log. Reg.	InSight	MGP-AttTCN
6h	44.5	37.2	35.52 ± 2.05
5h	44.3	37.2	38.43 ± 2.51
4h	50.9	40.9	38.54 ± 1.51
3h	55.2	52.2	42.07 ± 1.22
2h	53.7	48.4	47.08 ± 1.86
1h	55.8	52.2	53.09 ± 1.19
0h	55.7	53.9	57.87 ± 1.86



S1 Fig. Area under the Precision-Recall curve of different models.