

Model	Accuracy	Precision	Recall	F1 Score
<i>Linear Model (no Neighborhood)</i>	0.409	0.423	0.373	0.388
<i>GIN 1-hop Neighborhood</i>	0.914	0.909	0.9023	0.905
<i>GIN 2-hop Neighborhood</i>	0.981	0.978	0.977	0.978
<i>GIN 3-hop Neighborhood</i>	0.999	0.999	0.998	0.998
<i>GAN 1-hop Neighborhood</i>	0.874	0.865	0.863	0.865
<i>GAN 2-hop Neighborhood</i>	0.983	0.979	0.982	0.980
<i>GAN 3-hop Neighborhood</i>	0.995	0.991	0.995	0.993

Supplementary Table 1: Evaluation of different models to explore the impact of extended neighborhoods for the predictive power of NEPSTA GIN: Graph isomorphic network, GAN: Graph attention network. The model evaluation was performed on 84 patients.