SMARTPHONE APP FOR NOCTURNAL HYPOGLYCEMIA PREDICTION FROM SMBG MEASUREMENTS

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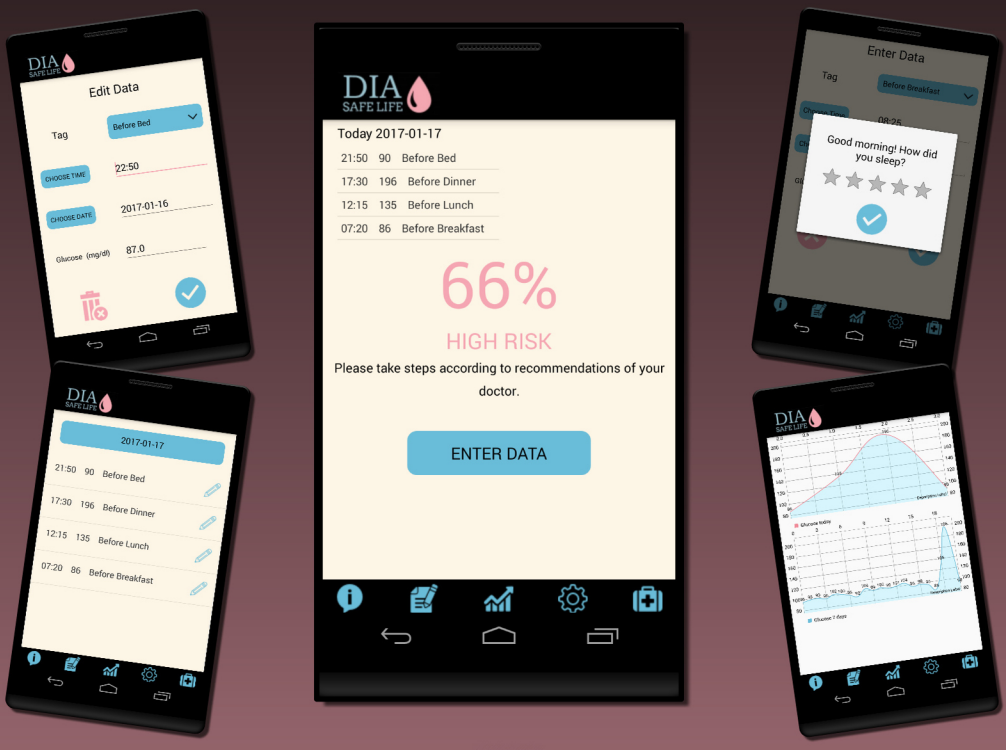

v. 4.4.4+, API 19 support | min. 1200 x 800 - 320 dpi | 2048+ MB RAM | 2 CPU (4+ optional) | optional

The DIASafeLife-algorithm uses a recently developed strategy for aggregating NH predictors known from the literature

NH predictor based on	SE	SP	PPV	NPV	f1 score	f2 score
HypoIndex	80.0	89.1	72.7	92.5	76.2	78.4
GRADEHypoIndex	77.5	90.0	73.8	91.7	75.6	76.7
LBGI	55.0	98.2	91.7	85.7	68.8	59.8
LR	62.5	98.2	92.6	87.8	74.6	66.8
DIASafeLife	80.0	96.4	88.9	93.0	84.2	81.6

The DIASafeLife-predictor [2] exhibits better performance than the NH-predictors used in the aggregation procedure

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FWF project I1669-N26 "Multi-parameter regularization for lifting the curse of dimensionality"

[2]-CMPB Journal Editor's Choice October 2016

Publications:

1. S. Sampath; P. Tkachenko; E. Renard; S.V. Pereverzyev. (2016) Glycemic Control Indices and Their Aggregation in the Prediction of Nocturnal Hypoglycemia From Intermittent Blood Glucose Measurements. Journal of Diabetes Science and Technology, Bd. 10, S. 1245-1250
2. P. Tkachenko; C. Kriukova; M. Aleksandrova; O. Chertov; E. Renard; S.V. Pereverzyev (2016) Prediction of nocturnal hypoglycemia by an aggregation of previously known prediction approaches: proof of concept for clinical application. Computer Methods and Programs in Biomedicine (CMPB), Bd. 134, S. 179-186.

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