

## **Abstract**

This bachelor's thesis looks at the topic of postoperative delirium in Parkinson's disease patients after deep brain stimulation surgery, as well as at factors capable of predicting delirium in these patients. The theoretical part of the thesis was divided into chapters covering Parkinson's disease, deep brain stimulation and delirium. Each of these chapters introduced basic concepts including those relevant to the research conducted for the purposes of this thesis. The goal of the empirical part of the thesis was to introduce this research and analyse the predictive abilities of cognitive and neuropsychiatric predictors based on its results. This was a retrospective cohort study conducted on patients in treatment for Parkinson's disease at the Department of Neurology of the First Faculty of Medicine, Charles University and the General Teaching Hospital, who had undergone deep brain stimulation surgery in the years 2000–2025. 148 patients were included in the analysis. The results were not significant when only postoperative delirium was predicted using cognitive and neuropsychiatric scales, but in the case of models predicting delirium independent of the timing of its onset, these scales had a significant effect on the prediction of delirium.

**Key words: Parkinson's disease, delirium, deep brain stimulation, cognitive predictors, neuropsychiatric predictors**