The aim of the project is to find, by statistical analysis of the date available at the time of entrance examination, parameters that predict the student's ability to finish his/her studies successfully.

In first part of this study, we will discuss admission criteria based on admission test (AT) and on undergraduate grade-point average (uGPA) supplemented by three other criteria (high school graduation in year of admission, performance in profile classes and so on. Admission test shows to be a good predictor of academic performance. Admitting part of students on the basis of their GPA is shown to improve prediction of academic performance.

General aptitude test (GAT) was temporarily added to admission process at the First Faculty of Medicine of Charles University in Prague (FFM). To prove predictive validity of GAT and to compare it with validity of current scientific knowledge test (ST). The added value of GAT was also examined. Prediction validity was estimated by Pearson correlation within cohorts (years 2002 – 2009) and by the correlation after each variable has been group-mean centred for all cohorts together. Incremental validity was assessed by testing submodels in linear and logistic regression models.

The first year of studies is shown to be crucial for overall academic performance at FFM. Although the predictive validity of GAT is significantly nonzero; it is markedly lower than predictive validity of ST. Also, ST contributes significantly to the proper selection of students, whereas the contribution of GAT can be inferred only in part.

We found surprisingly similar relations concerning ST and GAT regardless if they were observed in the Czech Republic or the United Kingdom.