The aim of the study was to assess frequency and type of comorbidities in chronic obstructive pulmonary disease (COPD) patients, if they are divided according to the Global initiative for chronic obstructive lung disease (GOLD) in severity stages from 1 to 4. This retrospective investigation included 168 COPD patients, with an equal share of subjects in each GOLD COPD stage of severity (GOLD I 47 subjects, GOLD II 43, GOLD III 41, and GOLD IV 37 subjects). All patients, 106 male and 62 female, age over 50 years (age median: 66), were investigated according to the order of arrival to examination in Outpatients Department of Clinic for Pulmonary Diseases Jordanovac, University Hospital Centre Zagreb. The most often comorbidities were cardiovascular diseases with 60.1%, no matter the GOLD severity stage. Follow pneumonia in 25.6% of COPD patients, anxiety and depression in 16.1%, diabetes mellitus in 12.5%, osteoporosis in 11.9% investigated subjects. In 13 patients (7.7%) with malignant diseases, the most common were bladder cancer (5/13). Part of COPD patients who get over pneumonia consistently grew with GOLD severity stages. The average number of comorbidities in GOLD I severity stage was 1.5, in GOLD II stage 1.8, in GOLD III stage 2.1, while in u GOLD IV stage was 1.7, what implicate that the difference in numbers of comorbidities according to GOLD severity stages could be important. This preliminary result was confirmed with statistically significant chi-square test with significance level 5% (α = 0.05), while a difference in type of comorbidities according to GOLD severity stages was not statistically significant.