Introduction:
The aim of research was to study the frequency and structure of acute cardiovascular events (ACE) in patients with severe COPD in the early stages of renal dysfunction with different levels of vitamin D.

Methods:
The study included 102 patients with 3-4 stage of COPD. All patients were diagnosed with 1-2 stage of chronic kidney disease according to the recommendations of KDIGO (2012). In addition to general clinical examination, the level of vitamin D was assessed in all patients and the frequency and structure of ACE in the previous 12 months were studied.

Results:
The average level of vitamin D was 7.2 ± 2.1 ng / ml. The incidence of insufficiency, deficiency and severe deficiency was 5%, 33% and 64%, respectively. The frequency of occurrence of the ACE was 42 cases. Acute coronary syndrome (ACS) and pulmonary thromboembolism (PTE) were observed relatively more frequently. When ranking according to the degree of severity of vitamin D level reduction, it was found that acute cardiovascular events occurred significantly more frequently in patients with severe vitamin D deficiency: 24 cases out of 43, including ACS (5 cases), PTE (2 cases), ischemic stroke (4 cases), severe arterial hypertension (5 cases), cardiac arrhythmia (8 cases). In patients with vitamin D levels of 10-20 ng/ml 12 cases of ACE were observed (p <0.05 compared to group with severe deficiency) - 3 cases of ACS, 2 cases of ischemic stroke, 4 cases of severe arterial hypertension, 3 cases of cardiac arrhythmia). Only 6 cases of ACE were observed (p <0.05 compared to group with severe deficiency) in patients with insufficiency of vitamin D (2 cases of ACS, 3 cases of ischemic stroke, 1 OHMK, 1 case of PTE).

Conclusion:
The frequency of acute cardiovascular events is significantly higher in patients with severe COPD and lower values of vitamin D. Thus, vitamin D can be considered as a possible target for the control and therapy of severe COPD.