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**Title:** NT-proBNP, troponin T and left ventricular function in patients with acute exacerbation of chronic obstructive pulmonary disease

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**Body:** Purpose. Many patients with chronic obstructive pulmonary disease (COPD) have unrecognized left ventricular dysfunction. We aimed to investigate relation between NT-proBNP, troponin T (TnT), and left ventricular function in patients with acute exacerbation of COPD. Methods. We prospectively included patients hospitalized with acute exacerbation of COPD. Complete pulmonary assessment and echocardiography were performed and we measured NT-proBNP and troponin T at admission, discharge, and 7-10 days after discharge. Results. We included 127 patients (70±10 years, 70% men, GOLD III/IV 87%). Left ventricular dysfunction (LVD) was recorded in 70 (55%) patients. NT-proBNP was higher in patients with LVD but decreased significantly from admission to discharge in patients with and without LVD.

(p<0.01 for all). A 30% decrease was observed in 52% of patients. TnT was not different between patients with and without LVD but decreased significantly in patients with LVD (p=0.043). Conclusions. LVD is common in patients with acute exacerbation of COPD. NT-proBNP and TnT dynamics suggest clinically relevant implications of cardiac (dys)function with potential to identify cardiac triggers of clinical deterioration.